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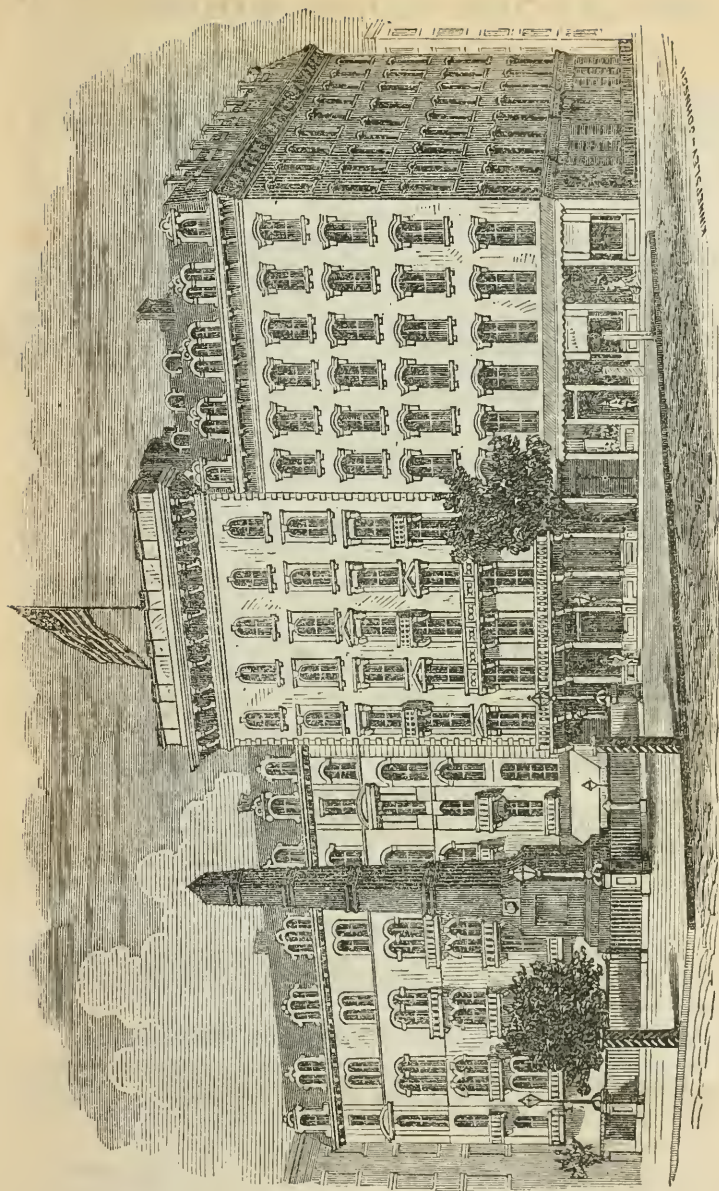


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
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The plan of this book is very simple, and will be readily understood by the aid of the Table of Contents and the Index. The four great "Trunk Lines," from the Atlantic seaboard to the Mississippi, which connect with the Union Pacific Railway at Council Bluffs and Omaha, are the New York Central & Hudson River Railway, the New York & Erie Railway, the Pennsylvania Central Railway, and the Baltimore & Ohio Railway. These, with their branches, all described in this volume, connect by rail with almost every city, town, and village in the United States. Each line has its advantages, and the "intelligent traveller," before buying his ticket, will choose the one which will enable him, without annoyance or unnecessary expense, to visit, *en route*, such cities, towns, and localities, as he may desire.

Passengers from Boston and the Eastern States can travel to the Pacific by "all rail," *via* Albany or New York, or by steamer on Long Island Sound. New York travellers, who wish to visit Niagara and the Suspension Bridge, can do so by way of the New York Central, or New York & Erie trunk lines. The former will take him through Central New York, *via* Albany, Rochester, and Buffalo, while the latter traverses the southern portion of the State, *via* Binghamton, Corning, and Buffalo. From New Jersey and Philadelphia, the traveller to the West will take the Pennsylvania Central line, and from Baltimore and Washington he will take one of the Baltimore & Ohio Railway routes. From Cincinnati, Chicago, and St. Louis, there are numerous routes through to Omaha, the eastern terminus of the Union Pacific Railway.

The cost of travelling by rail in the Western States is about three cents per mile. Children under twelve years of age are generally charged for at

half price, and those under five years of age are passed free. Sleeping-cars are run on all through-trains, and on most of the lines may be engaged in advance for the entire distance from New York to San Francisco at the usual charges. From \$2 to \$3 per day (24 hours) is generally charged for the use of sleeping-cars. The average speed on express trains is about thirty miles an hour. Travel on steamboats is somewhat less expensive, and less expeditious than by rail.

The charge, at first-class hotels throughout the United States, is from \$4 to \$4.50 per day. Board by the week is generally to be had at a lower price. The cost of meals while travelling may be estimated at from \$2 to \$3 per day. The best hotels in the various cities and towns are designated in their proper places in the body of the Guide.

It is the custom in America to deliver baggage to a person known as the baggage-master, who will give in return a "check" for every piece, on presentation of which the baggage is delivered. Baggage may be checked over long routes in this way, and the traveller, no matter how many times he changes cars or vehicles, has no concern about his trunks. The companies are responsible if the baggage should be injured or lost, the check being evidence of delivery into their hands. The traveller, arriving at the station, should first procure his ticket at the ticket-office, and then, proceeding to the baggage-car, or proper station of the baggage-master, have his trunks checked. The baggage-master usually requires the traveller to exhibit his ticket before he will check the trunks. Arriving at his destination, the check may be handed to the hotel-porter, always in waiting, who will procure the various articles, and have them sent to the hotel. The traveller in the United States, by the system now in vogue, is almost entirely relieved from any care or concern about his luggage.

It is not necessary to fee porters and waiters in the States, as it is in Europe, but the practice has some slight and irregular observance. The traveller is free to do as he pleases in the matter. Nothing of the kind is ever demanded. In all large cities there are coaches or omnibuses at the station on the arrival of every train, which connect directly with the principal hotels. A small charge is made for this conveyance, which, in some cases, is paid to the omnibus porter, and in others is regularly charged to the traveller in the hotel bill.

Travellers from abroad will understand that the present currency in the United States, with the exception of California, is exclusively bank-notes. These are issues of the national Treasury, commonly known as *green-backs*, and the notes of the national banks. They are taken everywhere without hesitation, and serve every practical purpose of coin. All prices are understood to be in this currency, which is at a discount for

gold; or, as the phrase is here, gold is at a premium—now (November, 1873), of about ten per cent. In the British Provinces, the circulating medium is coin, or the notes of the local banks, which are at par. In California, gold and silver are generally used, though bank-notes are coming into circulation.

As regards outfit, it is important for the traveller that he should be dressed with sufficient warmth. Our climate is very changeable, and the traveller had better suffer at noonday under too much clothing, than expose himself at night, in storms, or to sudden changes of the atmosphere, with too little. One should wear woollen under-clothing, and always have a shawl or extra wrapper of some kind. The traveller's own judgment will suggest to him that strong suits of gray or brown are more convenient and suitable than darker colors.

Full tables of distances accompany the description of each route in this volume, but, for hasty reference, the following summary will be useful to the traveller:

	Distance.	Via
<i>To Cincinnati.</i>		
From New York.....	861 miles.	Erie Railway.
“ “.....	758 “	“Pan-handle” Route.
“ Boston.....	992 “	
“ Philadelphia.....	667 “	
“ Baltimore.....	591 “	
<i>To St. Louis.</i>		
From New York.....	1,065 miles.	Pennsylvania Central Railway.
“ “.....	1,098 “	“Pan-handle” Route.
“ Boston.....	1,334 “	
“ Philadelphia.....	1,008 “	
“ Baltimore.....	973 “	
<i>To Chicago.</i>		
From New York.....	961 miles.	New York Central & Hudson River Railway.
“ “.....	978 “	Erie and Lake-Shore & Michigan Southern Railways.
“ Baltimore.....	899 “	Allentown Route.
“ Boston.....	1,020 “	
“ Philadelphia.....	823 “	
<i>To Omaha.</i>		
From New York.....	1,393 miles.	
“ Boston.....	1,513 “	
“ Philadelphia.....	1,317 “	
“ Washington.....	1,342 “	
“ Baltimore.....	1,292 “	
“ St. Louis.....	890 “	
“ Chicago.....	494 “	
<i>To San Francisco.</i>		
From Omaha.....	1,914 miles.	

In the preparation of this volume, the design has been to make it a complete guide to the Western country; but, apart from the value it may possess to the traveller, it is hoped that it will be found useful as a general gazetteer of the country it purports to cover.

Much care has been taken to make the HAND-BOOK accurate and complete in every particular, and the present edition has been carefully revised for the autumn of 1873, every part of the book being corrected and brought up to date. Notwithstanding this, however, so great is the complexity of the task, some errors will probably be found in it, and some omissions. It is hoped that the detector of these will call them to the attention of the Editor, in order that he may correct them in future editions. Communications should be addressed to the EDITOR OF APPLETONS' HAND-BOOK OF TRAVEL, care of D. Appleton & Co., New York.

* * In addition to the HAND-BOOK OF TRAVEL, the traveller will need a copy of APPLETONS' RAILWAY GUIDE, published semi-monthly, with time-tables corrected to date, price twenty-five cents.

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WESTERN TOUR.

GRAND THROUGH-ROUTES TO THE WEST.

ROUTE I.

NEW YORK TO CHICAGO.

Via New York Central & Hudson River Railway, and Great Western and Michigan Central Railways. (Time, 36 hrs.—Fare, \$22.)

PRINCIPAL STATIONS BETWEEN NEW YORK CITY AND DETROIT, MICHIGAN.—Yonkers, 15 miles; Tarrytown, 26; Sing Sing, 32; Peekskill, 42; Garrison's (West Point), 50; Fishkill, 59; Poughkeepsie, 73; Hudson, 115; Albany, 144; Schenectady, 161; St. Johnsville, 208; Little Falls, 218; Utica, 239; Rome, 254; Syracuse, 292; Rochester, 373; Lockport, 429; Suspension Bridge, 448; St. Catharines, Canada, 459; Hamilton, 480; Paris, 520; Woodstock, 539; London, 567; Windsor, 678.

[NOTE.—A detailed description of as much of this route as lies between New York and Detroit has been given in APPLETONS' HAND-BOOK OF AMERICAN TRAVEL—NORTHERN AND EASTERN TOUR, to which we refer the tourist who may desire particular information in regard to watering-places, cities, summer resorts, etc. The following sketch is merely a general outline of the route between New York and Detroit.]

If time is not a matter of importance to the tourist, the trip up the Hudson should be made in one of the steamers of the Day line, from which both sides of the river can be seen, whereas, from the cars, only the western bank is visible.

The lower Hudson, emptying into the Bay of New York, is like a huge arm of the sea, and, as we ascend, preserves its noble width, occasionally expanding into lakes, until the Highlands are reached. Leaving the city behind us, for the first twenty miles the Palisades rise like a vertical wall on the west, while on the east hill rises above hill, dotted with palatial mansions. Along the water's edge are strung a succession of beautiful villages, filled with the suburban houses of New-York business men. At the end of the Palisades the first expansion of the river known as Tappan Bay occurs, the width being over four miles and the length about twelve. Tarrytown, immortalized by Washington Irving, and Sing Sing, the seat of one of the State Prisons, are upon its eastern border, while upon the west stands Piermont, the original terminus of the Erie Railway. Croton Point divides this bay from Haverstraw Bay, at the upper end of which stands Peekskill at the gate to the "Highlands," as the mountains through which the river forces its way are called. Rising on either side their precipitous acclivities at places spring from the very water's edge; at others a more gentle ascent permits the building of a village or a city, every successive street being higher and higher, and every house being in plain view. In places the mountains approach so near as to reduce the river to a contracted channel and then they recede so as to allow the water to expand into a lake, and this

very peculiarity constitutes one of the principal charms of the Highland region. As we go northward we pass in succession the beautiful and prosperous cities of Peekskill, Fishkill, Newburg, Poughkeepsie, and Hudson; we catch a beautiful view of the United States Military Academy at West Point, and finally, leaving all behind us, pass through a more level country and arrive at Albany, where we exchange the steamer for the cars of the New York Central Railway.

From Albany to Suspension Bridge the road passes through the richest and most densely populated portions of the State, and the scenery in the main is of a pastoral character, there being no mountains to give an appearance of grandeur to the scene, still there is much that is beautiful in the extreme. The famous valley of the Mohawk is first traversed. The river, now quiet, now leaping over its rocky bed, is continually in sight, the hills bounding the valley adding interest to the view, and the many villages strung along the road giving evidence of solid prosperity. Schenectady, with grand old Union College; St. Johnsville, rich and prosperous; Little Falls, with its charming scenery; Utica, a large and wealthy city; and Rome, another prosperous city, are all in this valley, famous as the scene of many thrilling events in the history of the country.

Syracuse is the next city of importance on the line of the road, and is famed for its salt-wells, and for being the place at which the political conventions of the State are usually held. Next comes Rochester, the metropolis of Central New York, and the site of the celebrated Genesee Falls. All trains stop here, some long enough to allow a glimpse of the falls, in which case the opportunity should be improved. At Lockport, the wonderful system of locks, by which the Erie canal descends from the level of Lake Erie, is visible from the car-windows.

[All these places have been described in APPLETON'S HANDBOOK OF AMERICAN TRAVEL—NORTHERN AND EASTERN TOUR.]

At Suspension Bridge we cross the Niagara River, in full sight of the falls, and far above the waters rushing toward the whirlpool below. We now find ourselves in Canada, at the eastern end of

the Great Western Railway, which is, although one of the most uninteresting, one of the most comfortable roads in the country. In the neighborhood of St. Catharines and Hamilton there is some attractive scenery, but with these exceptions every thing is dull, flat, and unattractive, and the traveler will be glad, when, emerging from a cut, he suddenly comes upon the eastern shore of the Detroit River, at Windsor, opposite Detroit, Michigan, when our tour to the west properly commences.

MICHIGAN CENTRAL RAILWAY.

STATIONS.—Detroit, 677 miles from New York; Grand Trunk Junction, 680; Dearborn, 687; Wayne, 695; Denton's, 702; Ypsilanti, 707; Ann Arbor, 715; Dexter, 724; Chelsea, 732; Grass Lake, 743; Jackson, 753; Parma, 764; Albion, 773; Marshall, 785; White's, 792; Battle Creek, 798; Galesburg, 812; Kalamazoo, 821; Ostemo, 827; Mattawan, 833; Lawton, 837; Decatur, 847; Dowagiac, 856; Niles, 869; Buchanan, 875; Dayton, 879; Avery's, 886; Three Oaks, 888; New Buffalo, 896; Michigan City, 906; Porter, 918; Lake, 926; Gibson's, 938; Calumet, 947; Chicago, 961.

The *Michigan Central Railway* (234 miles in length) runs for the most part through a fine agricultural country, but not of a striking or picturesque character. In many places it passes through dense woods, and in others across and along the winding rivers which abundantly water the section of the State traversed by the road. There is an air of solid prosperity along the whole length of this line, and in the spring and summer the general aspect of the country is attractive and pleasing.

Detroit, Mich. (677 miles), is one of the oldest cities in the country, having been founded as a French missionary station in the year 1670. It is called the "City of the Straits" (which is in fact a translation of its name), from its situation on the banks of the *Detroit River*, a noble stream or rather strait, 20 miles long, connecting Lakes St. Clair and Erie, and affording the best harbor on the whole chain of the "Great Lakes." This river is subject to no material change of

level, varies in width from one-half to one mile, has a current of from three to four miles an hour, and is noted for the clearness and purity of its deep, fish-teeming waters.

The city extends along the bank of the river for about three miles, and is built up for about two and a half miles from the water. For a short distance from the river-bank it rises gradually, and then becomes perfectly level. The streets are wide, and generally shaded by an abundance of trees; the stores metropolitan in size and appearance; the churches numerous, and in many instances very beautiful; the private residences in the best portions of the city surrounded by spacious grounds, tastefully ornamented and filled with trees, flowers, and shrubbery, and the sidewalks broad and clean.

The city is laid out upon two plans, the one, that of a circle with avenues radiating from a centre like the spokes of a wheel; the other, that of streets crossing each other at right angles. The result has been a slight degree of intricacy in certain localities, which inconvenience is more than counterbalanced by a number of little triangular parks which diversify and ornament the place.

Detroit is always a pleasant place to visit, and its citizens are notably hospitable. In summer there are almost daily pleasure excursions, and the noble river furnishes a never-failing source of delight. The owners of private boats and yachts, and the numerous boat clubs, are organized as the Detroit River Navy. Several times each season there are grand reviews of this "Navy," when two or three hundred of these dainty craft form in line, and, headed by a small steamer, with a band, pass up and down the river accompanied by steamers, and gazed upon by thousands on the shores.

HOTELS.—The three leading hotels are the *Russell House*, *Biddle House*, and *Michigan Exchange*, which, although about equal as far as regards the "table," are in other respects to be estimated in the order in which we have mentioned them.

The *Grand Circus* is the principal park, and from it radiate the avenues previously mentioned. It was originally intended to be a circle traversed by two avenues intersecting each other at right angles.

Only half of this design was ever carried out, and the park consists of two quadrants, in each of which is a fountain. During the summer season there is music in this park two evenings in each week. The monument in memory of the Michigan soldiers who fell during the civil war is now building in one of these quadrants. Two of the avenues radiating from the Grand Circus are laid out as boulevards, and all are very beautiful. *Jefferson* and *Woodward Avenues* are the two principal streets, and intersect each other at right angles. *West Fort Street* is a broad and beautiful street, lined with elegant residences, among which are those of Senator Z. Chandler, Governor Baldwin, James F. Joy, the railroad magnate, and other prominent men; *Lafayette Avenue* is another fashionable street.

The *Campus Martius* is a large open space through which passes Woodward Avenue, and from which diverge Michigan, Michigan-Grand, and Monroe Avenues and West Fort Street. On this front the Opera-House, the Russell House, and the present City Hall, while upon one side is the new City Hall, one of the most beautiful in the country, and built entirely of Medina stone. The stores around this plaza are fine large buildings, and, when the old City Hall is destroyed, the place will rank architecturally with the best in the country.

The *Opera-House* is an elegant structure, and both in size and beauty is only surpassed by some five or six in the United States.

The *Custom-House*, in which is also the *Post-Office*, is in Griswold Street, the Wall Street of the city. It is a large stone building on the same model as those in Chicago, Cleveland, Toledo, Milwaukee, and many other cities, in which large post-offices have recently been erected.

The *Board of Trade Building* is another fine edifice, but it is unfortunately located on Woodbridge Street, near the river, where its fine proportions cannot be seen to advantage.

The *Michigan Central Freight Depot* should by all means be visited. It is 1,250 feet long, 102 feet wide, and is an immense room, without partitions or pillars. It is covered by a self-supporting corrugated iron roof; which is considered

a marvel of mechanical skill. This depot is on the line of the wharf, which is also covered by an iron roof, and freight and passengers in the stormiest weather are transferred from boats to the cars without exposure to the wet. In the immediate vicinity are the great *Wheat Elevator* of the company—from the cupola of which a superb view of the city, the river, and Lakes St. Clair and Erie, may be had—the *Round House*—in which 16 locomotives stand under a dome, second only to that of the Capitol, at Washington—and all the great workshops of the Company.

The churches of Detroit are noted for their number and beauty. The following are found the most attractive to strangers: *St. Paul's* (Episcopal), corner of Congress and Shelby Streets, is the parent church of the diocese, and is noted for its beautiful roof, which is "self-supporting." There is not a pillar in the church. *Christ's* (Episcopal), Jefferson Avenue, above Hastings Street, *St. John's* (Episcopal), Woodward Avenue, and *Grace*, (Episcopal), Fort Street, are all elegant structures. The *Fort Street* Presbyterian Church, corner of Third Street, has the handsomest front of any church in the city. The *First Presbyterian*, State Street, the *Jefferson Avenue Presbyterian*, above Rivard Street, and the *First Congregational*, Fort Street, corner of Wayne Street, are all handsome churches. The *Central Church* (Methodist Episcopal) has an elaborately decorated interior. It is on Woodward Avenue, above the Grand Circus, near St. John's. *St. Anne's* (Roman Catholic), Larned Street, corner of Bates Street, is the oldest church in the city, and is noted for its fine choir. *St. Peter and St. Paul's Cathedral* (Roman Catholic), Jefferson Avenue, corner of St. Antoine Street, is the largest church in the State.

The *Convent of the Ladies of the Sacred Heart*, on Jefferson Avenue, near St. Antoine Street, is a large and very beautiful building.

The *House of Correction*, in the northern portion of the city, is considered one of the best reformatory prisons in the country. Directly opposite to the House of Correction is a Home for discharged female prisoners, who are received here and furnished with work until places can

be found for them, out of the reach of the evil influences formerly surrounding them.

Water-works.—Detroit is well supplied with river water by the Water-works, which are located on the river in the upper portion of the city. The water is forced over a mile through immense iron pipes to a reservoir, near the House of Correction, whence it is distributed in the usual manner.

The school system of Detroit is admirable, and its school-houses are noble buildings.

The manufacturing interests of the city are large, continually increasing in importance, and of every kind and description. The shipping interest is also very important, while pork and fish packing gives employment to large numbers of men. According to the census of 1870, Detroit has a population of 79,619, and is the eighteenth city in size in the Union.

Elmwood Cemetery is a very beautiful place within the city limits, and is reached by street cars.

Woodlawn Cemetery is below the city. It is of recent origin.

Fort Wayne is a bastioned redoubt, about three miles below the Michigan Central Railway Depot. It stands upon the bank of the river, completely commanding the channel. The Fort Street and Elmwood cars run within half a mile of it, and it is also a favorite point to which rides and drives are taken.

Belle Ile, an island at the head of the river, opposite the upper limit of the city, is a favorite resort for picnics, etc.

Grosse Ile, 18 miles below the city, is an island over 3 miles long and 1 mile wide, and is a favorite resort of the wealthier residents of Detroit, many of whom have beautiful summer residences upon its bold shore, overlooking the main channel of the river. There is a hotel upon the island, and the fishing, boating, and bathing, are excellent.

Grosse Pointe, a few miles above the city, is a point of land projecting into Lake St. Clair. It is noted for its cherry orchards, and is the terminus of a beautiful drive over a good road. Along the shores of Lake St. Clair are a number of summer residences of gentlemen doing business in the city.

Put-in-Bay Islands.—This is a group of islands in Lake Erie, near the mouth of the Detroit River, and is famous as the scene of Commodore Perry's victory, September 10, 1813. Within the past few years this has become a favorite summer resort, as it combines all the advantages of pure air, bathing, fishing, boating, and convenience of access from any of the lake cities. From Detroit there is a daily steamer to Kelly's Island, the largest of the group. The hotel accommodations are good. These islands are noted for their vineyards, and the superior quality of the wine produced.

Dearborn (687 miles) is a small village on the river *Rouge*, 10 miles from Detroit. Its only importance consists in its being the site of a United States Arsenal.

Ypsilanti (707 miles) is a pleasant and prosperous place, of about 6,500 inhabitants. It contains many handsome churches, residences, and stores, and a fine Union School, and is the seat of the *State Normal School*. The *Pollet House* is a capital hotel. Paper is very extensively manufactured here.

From Ypsilanti to Dexter the road runs along the Huron River, which it crosses at many points.

Ann Arbor (715 miles) is a very pleasant city, of about 9,000 inhabitants, though nothing of it is seen from the cars except what is known as the "Lower town," consisting of a few mills and dilapidated stores and dwellings. The city stands upon an elevated plateau south of the depot, is regularly laid out, in many portions is handsomely built, and contains several elegant churches. In the centre of the city is a public square containing the county buildings, which are old and small. The Union School is one of the finest buildings in the State.

The *University of Michigan*, which is located in Ann Arbor, is one of the noblest institutions in the land. With fees little more than nominal, and with a standard of scholarship as high as any college or university in the country, it numbers among its students natives of every part of the globe. The three colleges of the University are those of Law, Medicine, and Literature, Science, and Art, in all of which are large and efficient corps

of professors. The university buildings occupy a square of ground, each front of which is a quarter of a mile in length. There are no dormitories, all the space being devoted to the purposes of instruction. The library is large and constantly increasing; the geological collection is one of the most complete in the country; the art-gallery contains plaster casts and reductions of numbers of fine pieces of statuary, as well as the original "Nydia" by Rogers, which was carved especially for this institution; and the medical museum is very complete. The grounds are thickly planted with trees, a custom having been originated by the class of 1858 for every graduate in the literary department to set out a tree with his own hands. The Observatory is one of the prominent features of the institution, but is not in the same group with the other buildings, being located on a hill about a mile distant: the instruments are large and very perfect. The total number of graduates from the university in the first 25 years of its existence (1870) was 2,476.

The last two weeks in June are those devoted to the commencement exercises, and visitors usually select this time as the most favorable to see the university.

The *Gregory House*, fronting on the public square, is the best hotel in Ann Arbor.

Jackson (753 miles) is a city of about 11,000 inhabitants, and is one of the busiest, prettiest, and most important places in the State. It has large manufacturing of various kinds, and contains the Michigan State Prison. It is upon the edge of the coal-measures of the State, and the mines can be seen from the railroad. Its geographical position, and the enterprise of its citizens combined, have made it a prominent railroad centre. The *Grand River Valley Branch Railway*, the *Jackson, Lansing, Saginaw Railway*, the *Jackson Branch of the Michigan Southern Railway*, and a road through Jonesville on the Michigan Southern Railway to Angola, Ind., all connect at this point. Artesian wells are bored here without difficulty, and the Holley Water-works are now being put in order.

Parma (764 miles) is where the road reaches the *Kalamazoo River*, which it follows to Kalamazoo, passing through

a rich and beautiful country noted for its wheat. In the harvest season the whole country for miles and miles looks like one golden waving sea, while the river constantly coming into view adds to the beauty of the picture.

Albion (773 miles) is a flourishing village. There is a small collegiate institution here, known as the Albion College, which is under the control of the Methodist Episcopal Church.

Marshall (785 miles) is a flourishing city, of about 5,000 inhabitants, being noted for its beauty and the fine quality of its flour. Paper is also largely manufactured here. The Kalamazoo River furnishes a fine water-power, and is the source of the prosperity of the place. This being the terminus of one of the divisions of the road, the railway company has erected large locomotive and repair shops, and a fine eating-house, which, from the superior quality of a dish for which it is famous, is known among travellers as the *Chicken-pie House*.

The best hotel is the *Marshall House*.

The Union School building at this place is probably the most costly in the State.

Battle Creek (798 miles) is at the mouth of the creek from which it takes its name, and which is the largest tributary of the Kalamazoo River. It is well known throughout the State as a milling town, and is, besides, very attractive as a place of residence. Its manufactures are numerous, diversified, and constantly increasing. Altogether the place is one of great thrift and beauty. The population is about 6,500. The *Peninsular Railway* is completed from this place through Charlotte, in Eaton County, to Lansing.

Kalamazoo (821 miles) is the largest village in the State. It has a population of about 11,000, and is built as much with a view to beauty as to utility. Its streets are lined with trees, many of them the native burr-oaks, carefully preserved, and the many elegant residences with which it abounds are uniformly surrounded with handsome grounds. A college, under the control of the Baptists, and an excellent Female Academy, are established here, and this is also the site of the "State Asylum for

the Insane." This institution is admirably managed. The buildings are constructed at large expense, and possess considerable architectural beauty. The Holley Water-works supply the town with water. The leading hotels are the *Burdick House* and *Kalamazoo House*. The *Kalamazoo, Allegan, & Grand Rapids Railway*, running from Grand Rapids to this place, connects here with the *St. Joseph Valley Railway*, extending from here to White Pigeon, on the Lake Shore and Michigan Southern Railway. A section of a railroad from this place to South Haven, on Lake Michigan, is also in operation.

Lawton (837 miles) is a small village, important on account of the extensive iron-works recently erected, and which are under charge of General Q. A. Gillmore, who performed such excellent service during the late war.

Niles (861 miles) is where the railway crosses the St. Joseph's River. It is a place of considerable importance, being the commercial centre of this section of the State. This is a pleasant place to stop at, the drives in the city being attractive, and the residents very hospitable. Population about 5,000. The Michigan Air-Line Railroad is nearly completed from Jackson through Three Rivers to this place.

New Buffalo is a small village, important as the point of junction of the new railroad extending north along the eastern shore of Lake Michigan with the Michigan Central. The road is completed to St. Joseph, which brings it to the heart of the famous fruit region of Michigan.

Michigan City, Ind. (906 miles), is of some importance as being the terminus of one of the divisions of the road, and consequently the location of repair and locomotive shops. It is the site of the Northern Penitentiary of Indiana.

CHICAGO, ILLINOIS.

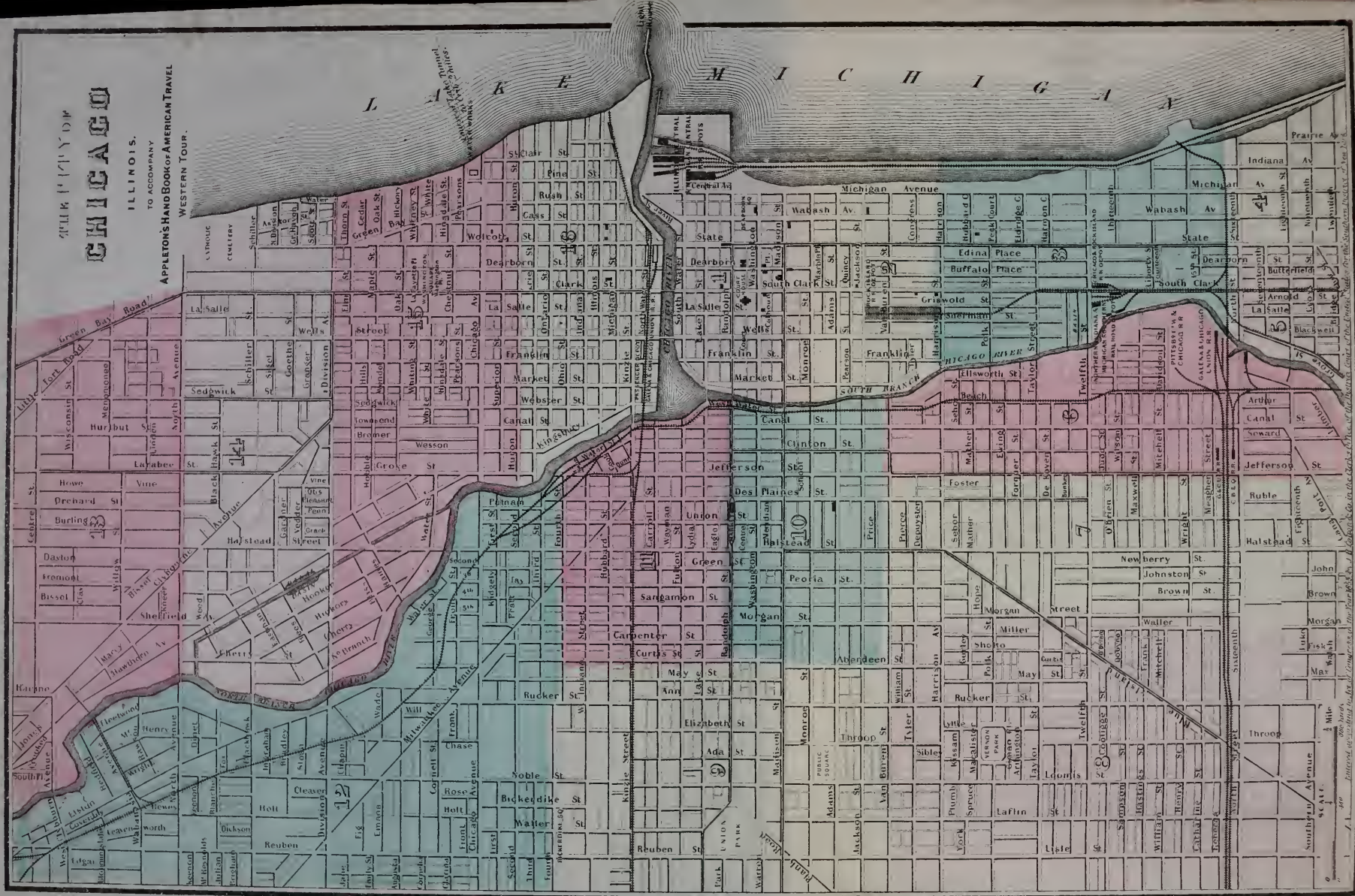
Chicago (963 miles) has within forty years grown from a small Indian trading post to the position of the metropolis of the Northwest, and the greatest railway centre on the continent. It is situated

THE CITY OF

CHICAGO

ILLINOIS.

TO ACCOMPANY
APPLETON'S HAND BOOK OF AMERICAN TRAVEL
WESTERN TOUR.



on the western shore of Lake Michigan, at the mouth of the Chicago River. By means of the latter, and the Illinois and Michigan Canal, it has continuous communication with the Mississippi River and the Gulf of Mexico, on the south and west, and with the chain of the Great Lakes, the St. Lawrence, and the Atlantic Ocean, on the east. Probably no inland city in the world possesses greater facilities for commercial intercourse.

The history of the city, though brief, is interesting, not only on account of the romantic incidents of its early discovery and occupation, but as furnishing one of the most, perhaps the most, remarkable instance on record of rapid, sustained, and permanent growth.

The first visitors to the site of the present city were Joliet (Louis) and Marquette (Jacques), who arrived August, 1673. Point au Sable, a native of St. Domingo, followed in 1796, but soon afterward removed to Peoria. The first permanent settlement was made in 1804, by Mr. John Kinzie, who moved hither from St. Joseph, at that time a missionary station on the east side of Lake Michigan. On April 7 and August 12, 1812, the Indian massacre occurred at Fort Dearborn, which resulted so disastrously to the little garrison.

At the close of 1830, Chicago contained twelve houses and three suburban ("country") residences on Madison Street, with a population, composed of whites, half-breeds, and blacks, numbering about 100. The first map of the town, as surveyed by James Thompson, bears date August 4, 1830.

Fort Dearborn was constructed in 1804, rebuilt in 1816, and pulled down in 1857. It stood near the head of Michigan Avenue, below its intersection with Lake Street, and a little north of the present Marine Hospital building.

The town was organized August 10, 1833, incorporated as a city March 4, 1837, and the first election held May 1, 1837. The first vessel entered the harbor June 11, 1834; and at the official census, taken July 1, 1837, the entire population was found to be 4,170. Outside of Fort Dearborn, in 1833, were about 35 houses, mostly built of logs. The first frame building was erected in

1832, by George W. Dole, and the first brick house in 1833. It was standing on Monroe Street, near Clarke, at a recent period. In 1843 the population of the city had increased to 7,580; in 1847 to 16,859; in 1850 to 28,269; in 1855 to 80,023; in 1860 to 109,263, and in 1865 to 178,539. Its present population, city and suburban, is more than 450,000. The census of 1870 gave the population of the city proper as 299,370.

During the years 1856-'58 the entire business portion of the city was raised from three to eight feet above its former level, which has facilitated drainage, and greatly improved its sanitary condition as well as its commercial facilities.

The site of the city is at present a gently-inclined plane, the ground in the western part of the city, three miles from the lake, being from 15 to 18 feet above the level of the lake. The streets are generally 80 feet wide, and regularly built. They cross each other at right angles, and are for the most part paved with stone or with wooden pavement. Many of them are from three to seven miles in length. The Chicago River, and its two branches, run through the city, dividing it into three unequal divisions, known as North, South, and West Chicago. Numerous bridges and tunnels connect the main avenues of travel leading from the city proper to the Northern and Western Divisions. These divisions are subdivided into 20 wards, and contain 1,100 streets, avenues, and alleys. The river and ship canals afford a harbor for the largest vessels for more than ten miles, at the entrance of the first of which is a new iron light-house. State Street is the Broadway of Chicago; while Michigan Avenue, Wabash Avenue, Prairie Avenue, South Park Avenue, West Washington Street, and North Dearborn Street, are distinguished by princely edifices, and adorned with rows of luxuriant trees. On South Water Street were situated warehouses and the large wholesale stores, while many of the largest and most elegant of the latter are now located on Michigan and Wabash Avenues, making a gradual inroad upon a favorite residence locality. Many of the private residences on the north and west side of the river are handsomely

built, and surrounded by highly-ornamented or cultivated grounds.

Chicago is the greatest primary grain-market in the world. The first shipment, consisting of 78 bushels of wheat, took place in 1838. In 1863 the exports of grain exceeded *fifty-four million* bushels, in 1865 about the same amount was shipped, and in 1872 the grain receipts were nearly *eighty-nine million* bushels. In 1865 nearly six hundred and fifty million feet of lumber were received, and in 1869 there were 1,183,659,283 feet of lumber, besides 900,000,000 pieces of laths and shingles received. It is probably the greatest stock-market in the world, as the following statistics (the latest we have at hand) will show: Receipts in 1872—cattle, 684,075; hogs, 3,488,528; sheep, over 300,000. The provision-trade is also very extensive and prosperous; the enormous number of 1,425,079 hogs was packed in the winter of 1872-'73. To those who would carry away with them a just estimate of the greatness of Chicago, a visit to the extensive grain elevators, cattle and lumber yards, and packing-houses, is necessary.

Chicago has been the arena of one of the most terrific and destructive conflagrations of modern times. The summer of 1871 was unprecedentedly dry, and many fires of greater or less extent throughout the Northwest had given ominous warning of the fate in store for any large city caught napping. In Chicago itself there had been several unusually destructive fires on previous days, tiring the firemen and disorganizing the department; and finally, on the evening of Sunday, the 8th of October, the main conflagration commenced, having its origin in a small wooden barn on De Koven Street, in the Western District of the city. The buildings in that quarter were mostly of wood, and there were several lumber-yards along the margin of the river. Through these the flames swept with incredible fury, and were carried across the stream by the strong westerly wind which was prevailing at the time. From the river they swept up into the Southern Division, which was closely built up with stores, warehouses, and public buildings of stone, brick, and

iron, many of which were supposed to be fire-proof. The fire raged all day on Monday, the 9th, and crossed the main channel of the Chicago River, consuming all before it in the Northern District, which was occupied mostly by dwelling-houses. From the very start the fire had been completely beyond the control of any human agency, and it was only on Monday evening that a great storm drenched the city and put an end to the progress of the flames.

In the Western Division, where the fire originated, about 194 acres of buildings were destroyed, including sixteen acres swept by the fire of Saturday evening, October 7th. This section contained, besides several lumber-yards and planing-mills, and numerous wooden structures of an inferior sort, the Union Depot of the St. Louis and the Pittsburg & Fort Wayne Railroads. Five hundred buildings were destroyed in all, and 2,250 persons rendered homeless. In the Southern Division the burnt district comprised about 460 acres. It extended from a line running diagonally from the corner of Michigan Avenue and Congress Street, southwest to the intersection of Fifth Avenue and Polk Street, up to the main channel of the river on the north, and filled the whole space between the southern branch of the river to the lake, only one block remaining unburnt in all that area. This district contained the greater part of the most expensive structures in the city—all the wholesale stores, all the newspaper offices, all the principal banks, and insurance and law offices, many coal-yards, nearly all the hotels, and many of the factories, the courthouse, custom-house, Chamber of Commerce, and other public buildings. Many of the finest churches in the city were consumed, among them that of the Rev. Robert Collyer, who made heroic but unavailing efforts to save it. The number of buildings destroyed in this division was about 3,650, which included 28 hotels and upward of 1,600 stores and manufacturing establishments. About 22,000 persons were rendered homeless. In the Northern Division the devastation was most wide-spread, more than one-half the entire area in that section being burned over. Of the 13,800 buildings in

that whole district not more than 500 were left standing, leaving 13,300 in ashes, and rendering 74,450 persons homeless. That part of Chicago next the lake, as far north as Chicago Avenue, was occupied by first-class private residences, of which only one was left standing.

The total area burned over in the city, including streets, was very nearly $3\frac{1}{2}$ square miles. The number of buildings destroyed was 17,450, and the number of persons rendered homeless was 98,500. Of the latter, upward of 250 are said to have lost their lives.

Not including depreciation in real estate, and loss of business occasioned by the fire, the grand total of pecuniary damage has been estimated at \$190,000,000. There was insurance on this to the amount of \$100,000,000, of which hardly \$45,000,000 was collected—the first result of the fire being to bankrupt many of the insurance companies all over the country.

Those who had built up Chicago, however, and made her one of the great commercial centres of the world, were not people to be crushed even by such a blow.

Between Saturday evening and Tuesday morning upward of two hundred million dollars' worth of property had been destroyed, merchants and millionnaires were being fed on government rations, but, on Wednesday, five of the leading daily newspapers were published, and hundreds of merchants announced their whereabouts. The business-men held meetings, and resolved to ask no compromises of creditors, and devised means for the rebuilding of their stores, and the resumption of business. This indomitable spirit has been displayed ever since, and bids fair to turn disaster into triumph. A new Chicago has risen on the ruins of the old, grander, more magnificent, and more extensive; and, with one-fourth of the city in ashes, the business of the year succeeding the catastrophe was greater than ever before in a similar period.

Of what was done by way of reconstructing the city during that year, we can give no better account than by copying an article from the *Chicago Tribune*, which, under the head of "A Year's Work," says:

"We know of no words which will

convey to persons residing outside of Chicago an idea of what has been done in the way of rebuilding the city, than to say that, beginning on April 15, 1872, and ending December 1, 1872, excluding Sundays, counting 200 working-days, and each day of eight hours, there will be completed one brick, stone, or iron building, 25 feet front, and from four to six stories high, for each hour of that time. In other words, the buildings of that size and character completed, and that will be completed by December 1st, will average one for each 60 minutes of 200 days of eight hours each.

"This estimate, which will fall below the actual fact, does not include the many stone, brick, iron, and wooden buildings built outside of the burned district, and which alone equal the ordinary new buildings put up in Chicago annually. There is no precedent in the world's history of such a growth; no precedent of such energy and bravery by a people who, within the year, had seen \$200,000,000 of their property destroyed by fire. The statement will sound extraordinary that, for seven months in 1872—beginning the first day the frost was out of the ground—there was built and completed in the burnt district of Chicago a brick, stone, or iron warehouse every hour of each working-day in that time. . . .

"This vast labor has not been without an increase in the business of all the great transportation companies tributary to the city. Nor has all this been accomplished without a corresponding increase of population. In June, 1870, the Federal census gave us a population of 299,227, and a year later the directory census gave us 334,270. When it is remembered all that has been done in Chicago since January last, and the increase of trade in every branch of industry, it will not surprise any person to know that our population, to-day, is at least 400,000, a part of which, however, is probably transient."

The commerce of the city in 1872 aggregated fully \$450,000,000, and some \$45,000,000 was expended in rebuilding; most of the burned district being covered with structures more handsome and durable than those destroyed. The sum of \$10,000,000 additional has been expended to date (August, 1873), in the erection of

additional buildings. The population in May last, as given by the directory canvassers, was 465,170.

HOTELS.

Chicago was always noted for the extent and perfection of her hotel accommodations. Since the fire the hotel system has been entirely reconstructed, covering a much greater area, but not materially increasing the number of rooms at the disposal of guests, the most particular attention having been paid to making provision for comfort and convenience. About 20 hotels have been erected, at a total cost of \$8,500,000, and the furnishing will swell the aggregate to \$10,000,000. The leading hotels are *Palmer's* (not quite finished), the *Pacific*, *Sherman*, *Tremont*, *Briggs*, *Gardner*, *Matteson*, *Commercial*, and *Clifton*, all of which are luxuriously appointed. There are also several very good hotels conducted on the European plan, prominent among which are *Burke's* and *Kuhn's*.

THEATRES, ETC.

The city is well provided with places of amusement. *McVicker's Theatre*, near the corner of State and Madison Streets, is one of the finest in the country; and in appointments and company will compare favorably with any in New York. *Hookey's*, just west of the Sherman House, is also a beautiful theatre. These two have been rebuilt since the fire. *Aiken's Theatre*, on Wabash Avenue and Congress Street, and *Myer's Opera-House* (minstrel), on Monroe Street near State, are new. The *Academy of Music*, on Halstead Street near Madison, was built in eight weeks after the fire, and has recently been enlarged and otherwise improved. The *Globe Theatre*, on Desplaines Street near Madison, hitherto devoted to the *vaudeville* class of entertainments, is now devoted to legitimate drama, and has a good company. The far-famed *Opera-House* (Crosby's) and the *Museum* (Wood's) have not been rebuilt.

CHURCHES.

A great number of church structures were destroyed in the fire, but most of

them have been rebuilt, though many of them have made a change of site farther away from the business centre. The directory gives a present list of 212, which includes 25 missions. Of the 187 churches, 20 are Baptist, 17 Congregational, 18 Episcopal, 26 Evangelical and Lutheran, 5 Jewish, 25 Methodist, 21 Presbyterian, 27 Catholic, 4 New Jerusalem, 5 Unitarian, and 3 Universalist. In no other large city in the country, probably, are the leading denominations so nearly equal in strength, or better represented by their pulpit eloquence. Particular attention is paid in most of the churches to the character and quality of the music.

OTHER BUILDINGS.

The *Chamber of Commerce* was rebuilt on the old site on Washington Street, opposite the Court-House Square, and is a building not unlike the old one, though the stories are higher and the decorations much finer than before. The *Board of Trade* has a membership of about 1,400, and the tourist will find it interesting to visit the ladies' gallery during the daily session, from 11 to 1 o'clock; or any gentleman may obtain admission to the floor if introduced by a member.

The old *Custom-House*, on Dearborn and Monroe Streets, only the walls of which were left standing, has been sold to the city, and is now being fitted up as a public library, the nucleus for which was furnished by donations of books from Great Britain and by Eastern publishers. The collection now comprises about 8,000 volumes, but a large number will be added by purchase as soon as the building is made ready to receive them. The government has secured a large block a little south of the old site, and the erection of one of the largest and finest buildings in the country is now in progress. It will cost more than \$3,000,000, and will be used as a post-office as well as a custom-house, containing also rooms for the United States courts of the district.

The *Court-House Square* is still vacant, except that a small portion of the old building still stands on the eastern side. A new structure, very much superior to the old one, will be commenced shortly.

NEWSPAPERS, ETC.

There are about 80 publications in the city claiming to be classed under the head of newspapers. The daily press, proper, has a circulation of 98,000, and is widely celebrated for its enterprise and ability. The leading papers are the *Tribune*, *Times*, *Inter-Ocean*, *Evening Journal*, *Evening Post*, and *Staats Zeitung* (German), each of which is issued from a fine building. It is worthy of note that the *Tribune* building, erected but a short time before the "great conflagration" was believed to be so thoroughly fire-proof that it was not insured against the disaster; but it shared the common fate, and was replaced by a more handsome and larger building of brown-stone.

The passenger-depots have all been restored. Two of these are very imposing stone structures: the *Central Depot*, at the foot of Lake Street, which forms the terminus of the Illinois Central, Michigan Central, and Burlington & Quincy Railroads; and the *Union Depot* on Van Buren Street, half a mile west from the lake, forming the terminus of the Rock Island, and of the Lake Shore & Michigan Southern Railroads.

CONVEYANCES.

Carriages are always to be found at the railway-stations and steamboat-landings, as well as at the hotels, livery-stables, and at the Court-House Square, the rates of fare being established by law, and cards stating the law being kept by every driver, which must be shown on demand. As is now customary in all American cities, there are lines of omnibuses connecting with all trains, by which passengers and their luggage are taken to any part of the city at reasonable rates.

There are also lines of omnibuses running south on Wabash Avenue, west on Washington and Adams Streets, and north to Lincoln Park.

Horse Street Railways, which were first introduced in 1858-'59, furnish the most ready means of visiting the different parts of the city. There are fourteen lines, running in the three divisions of the city, as follows: the South Division, five lines, viz., the Cottage Grove, Indiana Avenue,

Archer Avenue, State Street to the Stock-Yards, and a steam-dummy through the South Park to Hyde Park; in the West Division, six lines, viz., Randolph Street, Madison Street, Milwaukee Avenue, Halsted and Blue Island Avenue, Van Buren Street, and Clinton Street; and in the North Division four lines, viz., to city limits, Chicago Avenue, Sedgwick Street, and Clybourne Avenue.

BRIDGES.

The fact that the city is divided into three sections by the Chicago River has necessitated the building of numerous bridges to facilitate intercommunication. These are all draw-bridges, and are a great obstacle alike to vessels, steamers, riders, drivers, and pedestrians. To vessels and steamers, when closed, they are an insuperable barrier, and when open they are the means of stopping all crossing of the river. To obviate this difficulty, it was determined to construct

TUNNELS

under the river.

The first river-tunnel constructed in this country was commenced at Washington Street, in Chicago, in July, 1867, and completed in December, 1868, at a cost of about \$400,000. The length of the footway from end to end is 810 feet; but the whole length of the roadway is three-tenths of a mile. The diameter of the tunnel is 19½ feet at the entrance, and increases to 23½, 150 feet from the river centre. There are ventilation-shafts 110 feet from the entrance, and lights at intervals of 40 or 50 feet. There is a double carriage-way throughout the structure, each road-way being 11 feet wide and 15 feet high. It is now contemplated to substitute tunnels for bridges at many points along the river, but only one other has yet been built: it connects the North and South Divisions, on the line of La-salle Street.

PARKS AND BOULEVARDS.

Chicago has a most liberal area of free pleasure-grounds, most of which are already improved. In 1869 the Legislature authorized a grand system of parks and

boulevards, which, when completed, will have no superior in the world. It consists of a broad drive, two miles in length, along the northern lake-shore to *Lincoln Park*, of 230 acres, very finely laid out. Thence a drive, three and a half miles long, due west, connects with a boulevard seven miles long, from north to south, on which lie three parks: viz., *Humboldt*, *Central*, and *Douglas*, containing, in the aggregate, 536 acres. These are only partially improved, but will well repay a visit. From the southern end of this boulevard another extends eastward to the two *South Parks*, containing about 1,000 acres, which are laid out with good taste, and are very attractive; the most southerly extends $1\frac{6}{10}$ mile along the shore of the lake. Two boulevards run thence, northward, to the well-paved streets that connect with the business portion of the city. The parks and boulevards contain fully 33 miles of drives, without counting the road-ways around the parks.

Lincoln Park, on the lake-shore, in the North Division, has already about four miles of drives in its enclosure, splendid trees, artificial hills and mounds, miniature lakes and rivers, summer-houses, rustic bridges and seats, shady walks, and all the attractions that natural and artificial charms could give it. On Saturday afternoons, in summer, when a large orchestra gives open-air concerts there, the scene is one of indescribable life and brilliancy, the road-ways crowded with carriages, and the paths thronged with people. *Lincoln Park* is readily accessible by the horse-cars, the stages, and along the splendid *Nicolson* drives.

Union Park is located in the very centre of the residence portion of the West Division; it is equally accessible by the *Madison* and *Randolph Street* cars, by the *Washington-Street* stages, or can be reached on foot without fatigue. Though only 17 acres in area, the judicious expenditure of \$100,000 on lakes, drives, hills, pagodas, inner parks, zoological gardens, and admirable landscape architecture, has rendered its size apparently much greater. There are open-air concerts here every Wednesday evening in summer, when it is even more crowded than *Lincoln Park*.

Lake Park, on the south side, running about a mile on the lake-shore, is unimproved itself, though ornamented by the elegant *Michigan-Avenue* residences, and is a favorite resort of summer evenings, and especially on Saturday evenings, when the band plays.

There are also *Dearborn Park*, *Jefferson Park*, *Groveland Park*, and *Ogden Park*, and many smaller public places are found in all divisions of the city.

THE LAKE-TUNNELS.

The tunnel under Lake Michigan, by which the city is supplied with an abundance of the purest water, is an object of great interest, and has been described as the eighth wonder of the world. The *Water-Works* are situated on the lake-shore, in the North Division, about one mile north from the court-house, and may be inspected on application to Mr. Cregier, the engineer in charge. They comprise a water-tower, 130 feet high, in which the water is forced by four engines, having a pumping capacity of 71,000,000 gallons daily, and flows thence through the street pipes to every part of the city. A very fine view of the city and surroundings may be obtained from the top of this tower, which is reached by a spiral staircase. From this tower a tunnel extends out to a distance of two miles under the lake, at right angles with the shore. This tunnel is nearly circular in form, the bore being 62 inches high, and 60 inches wide. It is formed of brick masonry, 8 inches thick, bedded into the clay, and required about 4,000,000 bricks to construct it. The bottom of the tunnel is 66 feet below the lake-surface at the lake end, and descends four feet on the two miles of dip toward the shore. The lake terminus of this tunnel, known as "*The Crib*," is visited by pleasure-tugs almost daily during the fine weather of summer, giving the tourist an opportunity of inspecting it. The crib at first consisted of an iron shaft, surrounded by a pentagonal structure of logs, containing 600,000 feet of timber, and 2,000 bolts. This is now being filled in with solid masonry, on which a light-house will be built in 1874 or 1875, which, in addition to the ordinary lantern, will display signals when storms

are indicated by the observations of the United States Signal-Service Corps. The tunnel was commenced on the 17th of March, 1864, and completed December 6, 1866, but the water was not supplied to the city through it till March 25th, following. The contract price for the tunnel alone was \$315,139.

Another tunnel was commenced in the summer of 1873, with an internal diameter of seven feet, which will connect the Crib with the present pumping-works, and thence extend underground to the southwestern part of the city, having a total length of about six miles. The land terminus will have an independent pumping-works to supply that part of the city with water. The contract price of the second tunnel is about \$400,000. When completed, the total cost of the water system of Chicago will foot up to fully \$6,000,000.

OTHER PLACES OF INTEREST.

The *Douglas Monument* occupies a site formerly owned by Mr. Douglas himself. The tract, one acre in extent, was purchased from Mrs. Douglas for the sum of \$30,000. The monument consists of a circular base, 52 feet in diameter, a pedestal, 21 feet high, and column of 43 feet, surmounted by a sphere, upon which a bronze statue of Douglas, 12 feet high, is to be placed. The entire height of the monument, when completed, will be 100 feet, and the cost \$75,000.

The *Artesian Wells* of Chicago are a very interesting feature. The first sunk are situated at the intersection of Chicago and Western Avenues, and are easily reached by the cars on West-Randolph Street. They consist of two, respectively 911 and 694 feet deep, and flow about 1,200,000 gallons daily. It is noteworthy that they were sunk in 1864 under the direction of a medium who prophesied that oil would be found there—and prophesied falsely. Since then nearly forty other artesian wells have been sunk in Chicago, with uniform success. The Stock-Yards, the west-side parks, one distillery, and several other establishments, are supplied with water from these wells.

The *Union Stock-Yards* embrace 345 acres, laid out in streets and avenues,

and provided with an abundant supply of water, and every thing needful in the receiving and tending of stock. Nine of the railways terminating in Chicago find a common centre here: 15,000,000 feet of lumber were used in constructing the flooring and pens, and the whole cost of construction thus far has reached \$1,000,000. There is a large and handsome brick hotel connected with the yards. There is a national bank, known as the *Stock-Yards Bank*, which has its place in the clearing-house of the city. The *Stock-Yards Board of Trade* has 150 members, and there are about 1,500 drovers and operators on the grounds daily. Quite a large town—of some 4,000 people—has sprung up in the immediate vicinity, with post-office, telegraph-office, churches, schools, etc. The scene is very animated and interesting during the day.

Dexter Park racing-course is located here, with splendid running and trotting tracks, stands, and good accommodations. The *Shooting-Club*, also, has its park here, and, in the season, keeps about 25,000 pigeons in cages, and houses for practice and matches.

The Stock-Yards and the park are readily reached by drives, or by steam and horse cars.

The *Grain Elevators* are also a very interesting feature, and should be visited by those who want to obtain an idea of the way in which the immense grain-trade of Chicago is handled. There are fifteen of these buildings, all situated on the banks of the river, and connected with the railroads by side-tracks. They have an aggregate storage capacity of 12,800,000 bushels, and receive or discharge grain with almost incredible dispatch, by the aid of machinery, without the use of sacks.

EDUCATIONAL AND LITERARY INSTITUTIONS.

The *University of Chicago* should be visited, if the traveller have time. It was founded by the late Senator Douglas, and was first opened for instruction in 1858. It occupies a beautiful site, overlooking Lake Michigan, at Cottage Grove, four miles south of the Court-House, and is readily reached by the State-Street cars.

The main, central building, 136 by 172 feet, was completed in 1866, at a cost of \$110,000. The south wing has recently been added. When the edifice is finished, it will be one of the most commodious and elegant buildings in the West.

The *Dearborn Observatory* (tower), which adjoins the University on the west, contains the *Clarke telescope*, which is one of the largest and best-constructed instruments in the country. The object-glass has a focal length of 23 feet.

The *Chicago Theological Seminary* is one of the most noteworthy institutions of the city. The building stands on the west side of Union Square, at the intersection of Reuben and Warren Streets. It has a frontage on the park, and is in the Norman style of architecture. It contains a chapel, library, and lecture-rooms. The cost was about \$100,000.

The *Baptist Theological Seminary* has a large and fine building in the rear of the *University of Chicago*.

The *Presbyterian Theological Seminary*, founded in 1859, has a fine building, recently erected at the corner of Fullerton Avenue and Halsted Street. It is five stories high, and contains a fine library.

Chicago also contains four medical colleges, the most noteworthy of which is the *Rush Medical College*, founded in 1842, and with a new and handsome building located at the corner of North Dearborn and Indiana Streets—the *Chicago Medical College* has now a large building on the corner of Prairie Avenue and Twenty-sixth Street, the *Bennet* (Eclectic), at 461 Clark Street, and the *Hahnemann* (Homœopathic) *College* is located on the corner of Cottage Grove Avenue and Twenty-eighth Street—2 *Commercial Colleges*, 32 Roman Catholic convents and schools, and 34 public schools.

Among the purely literary and scientific institutions, the *Academy of Sciences* and the *Historical Society* were the most prominent. Both buildings were burned to the ground. The Academy has just finished a new structure on the old site, on Wabash Avenue, near Van Buren Street, and is hard at work in gathering a collection to take the place of the 38,000 specimens in the several departments of natural history, which, with a fine library, were totally destroyed in Oc-

tober, 1871. The Historical Society has not been revived, and possibly will not be for some years to come. It owned a large and very valuable collection of books, manuscripts, and war-relics.

CHARITABLE AND BENEVOLENT INSTITUTIONS.

The *Cook County Hospital*, erected in 1856, is on the corner of Eighteenth and Arnold Streets; the *Magdalen Asylum* is on North Market Street; the *Protestant Orphan Asylum* is at the corner of Michigan Avenue and Twenty-second Street; the *Home for the Friendless* is at 911 Wabash Avenue, and *St. Joseph's* (male) and *St. Mary's* (female) *Orphan Asylums* are located on North State, corner of Superior. The two last-named institutions are under the charge of the Sisters of Mercy. A new *Marine Hospital*, one of the largest and most costly in the country, is about finished at Lake View, a little beyond Lincoln Park. *Mercy Hospital*, corner of Calumet Avenue and Twenty-eighth Street, is an immense institution well worth visiting.

CEMETERIES.

Of the cemeteries, *Graceland*, *Rose-hill* and *Calvary*, in the North Division, are the most interesting. The last two are on the line of the Chicago & Milwaukee Railway. *Oakwood*, on Vincennes Road, three miles south of the southern limits, is also a very pretty rural spot. This cemetery can be reached by horse-cars and dummy, or by a pleasant drive through the boulevards.

SUBURBS AND VICINITY.

Chicago will in a few years be as famous for its suburbs as Boston. It has already about 40 towns which may be regarded as suburban, with their frequent special trains and their population composed exclusively of Chicago businessmen and their families. This population in the aggregate reaches a figure of nearly 100,000. Any one of these suburban towns may be visited in a day, and the arrangement of the trains is such that two or three of them may be taken in a sin-

gle excursion by tourists who find a pleasure in passing their time in this way.

The immediate suburbs are very charming. On the south side are *Groveland Park*, *Vincennes Road*, and *Hyde Park*, all of which may be included in a single drive. A large hotel will be found in the latter place. On the west side, *Riverside* is the most notable, and, though 13 miles from the city, it is connected directly by a boulevard, and will repay the visit with its beautiful natural scenery, the splendid roads, parks, and other costly improvements, that will be found there. There is also a hotel here. *Lake View*, on the north side, will be found to contain many handsome residences, grounds, and gardens. These places may all be reached by railroad as well as by carriage.

Of the more remote suburbs, those most worthy of a visit are *Lake Forest*, *Evanston*, and *Harlem*, particularly the former. It is located on the Millwaukee division of the Chicago & Northwestern Railroad, about 28 miles from Chicago.

ROUTE II.

NEW YORK TO CHICAGO.

Via Erie and Lake Shore & Michigan Southern Railways. (Time, 34 hrs.—Fare, \$22.)

STATIONS ON ERIE RAILWAY.—New York—Jersey City, one mile from New York; Paterson (Junction of Newark Branch), 17; Suffern, 32; Ramapo, 34; Newburg Junction (Junction of Newburg Branch), 46; Turner's, 48; Grey-court (Junction of Warwick and Newburg Branches), 54; Goshen (Junction of Montgomery Branch), 60; Middletown (Junction of Unionville Branch), 67; Port Jervis, 88; Lackawaxen (Junction of Hawley Branch), 111; Narrowsburg, 123; Deposit, 177; Susquehanna, 193; Great Bend, 201; Binghamton (Junction of Delaware, Lackawanna, and Western, Syracuse and Binghamton, and Albany and Susquehanna Railways), 215; Owego (Junction of Cayuga Division of Delaware, Lackawanna and Western Railway), 237; Waverly (Junction of Lehigh Valley Railway), 256; Elmira (Junction of Northern Central Railway), 274; Corning (Junction of Rochester Division, and Corning, Blossburg and Tioga Rail-

way), 291; Canisteo, 328; Hornellsville (Junction of Buffalo Division), 332; Olean, 395; Carrollton (Junction of Bradford Branch), 408; Salamanca (Junction of Atlantic and Great Western Division), 415; Dunkirk (connects with Lake Shore Line), 460.

The Erie Railway is one of the noblest triumphs of engineering skill and perseverance to be seen in this country or in any other. When first built, this road, except at a few points, lay through an almost unknown country—a country as fraught with wondering interest as the Adirondack region now is. Portions of the line were considered impassable to any other than a winged creature, yet mountains were scaled or pierced, and river cañons passed, by blasting a path from the face of stupendous precipices; gorges of fearful depth were spanned by daring bridges, and broad, deep valleys crossed by massive viaducts. Villages began to spring up along its line; those already existing expanded their bounds, and some have become cities. It has opened a way to market for the products of the soil, and the mineral wealth hidden in the mountain-ranges that it traverses. It threw out branches right and left, to infuse the blood of commerce far and wide, and is now one of the main arteries of travel between the East and the "Great West," though only completed on the 15th of May, 1851.

In the State of New Jersey it passes through the great manufacturing city of Paterson, famed for the beautiful falls of the *Passaic*, and then at the distance of 31 miles from New-York City it crosses the line near *Suffern's Station*, and enters into the State of New York, commencing the ascent of the famous *Ramapo Valley*. At *Sloatsburg* the road passes near *Greenwood Lake*, a noted summer resort, around which are a number of little lakes, each beautiful and attractive; a few miles farther, and one can find at *Turner's* a most picturesque view, and, should he desire to stop, all the fishing and boating he may desire. On approaching *Otisville*, the eye is attracted by the bold flanks of the *Shawangunk Mountain*, the passage of which great barrier (once deemed almost insurmountable) is a miracle of engineering skill. A

mile beyond Otisville, after traversing an ascending grade of 40 feet to the mile, the road runs through a rock-cutting 50 feet deep and 2,500 feet long. This passed, the summit of the ascent is reached, and thence we go down the mountain's side many sloping miles to the valley beneath. The scenery along the mountain-slope is grand and picturesque, and the effect is not lessened by the bold features of the landscape all around. In the descent of the mountain the embankment is securely supported by a wall 30 feet in height and 1,000 feet long. Onward the way increases in interest, until it opens upon a glimpse, away over the valley, of the mountain-spur, called the *Cuddeback*; and, at its base, the glittering water is seen now, for the first time, of the Delaware and Hudson Canal. Eight miles beyond Otisville we are imprisoned in a deep cutting for nearly a mile, which prepares us for the brilliant surprise which awaits us. The dark passage made, and yet another bold dash through rocky cliffs, and there lies suddenly spread before us, upon our right, the rich and lovely valley and waters of the *Never-sink*. Beyond, sweeps a chain of blue hills, and at their feet, terraced high, gleam the roofs and spires of the village of *Port Jervis*; while onward, to the south, our eye first beholds the floods of the Delaware, which is to be so great a source of delight in our journey onward, for nearly 90 long miles, to Deposit.

At *Shohola* we find ourselves among some of the greatest engineering successes of the Erie route, and some of its chief pictorial charms. Here the road lies on the mountain-side, several feet above the river, along a mighty gallery, supported by grand natural abutments of jagged rock. Upon three miles along this Shohola section of the road at least \$300,000 were expended.

At *Deposit*, 177 miles from New York, we bid good-by to the Delaware, which we have followed so long, and prepare for the ascent of a heavy grade over the high mountain-ridge which separates it from the lovely waters of the *Susquehanna*. As the train descends into the valley there seems no promise of the wonders which are awaiting us, but they come suddenly, and the view opens almost immediately at

the right—deep down upon the winding *Susquehanna*, reaching afar off amid a valley and hill picture of rare beauty, a fitting prelude to the sweet river-scenes we are soon to delight in. This first glimpse of the *Susquehanna* is esteemed one of the finest points of the varied scenery of the Erie Railway route. It may be looked at more leisurely by one who tarries to explore the neighboring scenery, and the valley of the *Starrucca*, with its grand viaduct, which we are now rapidly approaching. The *Starrucca Viaduct* is one of the greatest engineering achievements of the entire route. It is 1,200 feet in length and 110 feet high, and has 18 grand arches, each 50 feet span. The cost was \$320,000. From the vicinity of *Susquehanna*, the next station, the viaduct itself makes a most effective feature in the valley views. A little beyond the viaduct, and just before we reach the *Susquehanna* station, we cross a fine trestle-bridge, 450 feet long, over the *Cunnewacta Creek*, at Lanesborough. We are now fairly upon the *Susquehanna*, not in the distance, but near its very bank, and soon we reach the end of the second grand division of our route, and enter the depot of *Susquehanna*.

Two hundred and fifteen miles from New York we find ourselves at the flourishing city of *Binghamton*, the site of the State Inebriate Asylum, an important railroad centre, and surrounded by the beautiful hilly and rolling country through which we pass as far as *Hornellsville*, for we are now out of the mountains. Twenty-one miles farther and we come to *Owego*, a large and prosperous place, and then to *Elmira*, the most important city on the road. At *Hornellsville* we reach the last and least interesting division of the road, and soon after commence to descend to the Lake Erie level. At *Dunkirk*, 460 miles from New York, we reach the junction with the Lake Shore line, and leave the State of New York, crossing the upper corner of Pennsylvania to *Erie*, an old, pleasant, and important lake city, and the point at which we begin our purely WESTERN TOUR.

NOTE.—The portion of the route which we have thus hastily sketched is elaborately described in "APPLETON'S HAND-

BOOK OF AMERICAN TRAVEL—NORTHERN AND EASTERN TOUR," to which the traveller is referred for details. For the convenience of the traveller we give below the names of *all* stations between Buffalo and Chicago, though only the more important will be described.

STATIONS ON LAKE SHORE LINE.—Buffalo, 423 miles from New York *via* Buffalo and Erie Railway; Lake View, 15 miles from Buffalo; Angola, 21; Irving, 29; Silver Creek, 31; Dunkirk, 460 miles from New York *via* main line, 40 miles from Buffalo; Westfield, 477; Ripley, 485; Northeast, 493; Erie, 508; Girard, 523; Conneant, 535; Kingsville, 543; Ashtabula, 549; Geneva, 558; Madison, 563; Painesville, 574; Willoughby, 585; Cleveland, 603; Berea, 616; Elyria, 628; Oberlin, 634; Kipton, 641; Wakeman, 646; Norwalk, 658; Monroeville, 662; Bellevue, 670; Clyde, 677; Fremont, 685; Elmore, 698; Toledo, 715.

MICHIGAN SOUTHERN DIVISION.—Sylvania, 725; Palmyra, 742; Adrian, 747; Hudson, 764; Hillsdale, 780; Jonesville, 785; Coldwater, 803; Burr Oak, 820; Sturgis, 827; White Pigeon, 838; Bristol, 849; Wauseon, 747; Stryker, 761; Bryan, 769; Edgerton, 779; Brimfield, 811; Ligonier, 823; Goshen, 837; Elkhart, 857; Mishawaka, 868; South Bend, 872; Carlisle, 885; La Porte, 899; Chesterton, 901; Englewood, 952; Chicago, 958.

Conneant, O. (535 miles), is the first station in Ohio. It has a good harbor, and is noted as the landing-place of the party who made the first settlement in Northwestern Ohio.

Ashtabula, O. (549 miles), is a small place, and is only of commercial importance as a lake port.

Painesville, O. (574 miles), is charmingly situated on *Grand River*, about three miles from Lake Erie, and one hundred feet above the lake. It is an attractive place, containing a beautiful public park, some handsome buildings, a large female seminary, and the works of the Geauga Furnace Company. The valley through which the river runs is deep and picturesque. The stone bridge by which the railway crosses the river is over 800 feet long.

Willoughby, O. (585 miles), is

a pleasant village, chiefly noted as the seat of a small medical college and a large female seminary.

Cleveland, O. (603 miles), is the second city in size in the State, and is noted, not only for its large commercial and manufacturing interests, but for its extreme beauty. It was the first settlement within the limits of Cuyahoga County, in that part of Ohio which has long been known as the Western Reserve. It was laid out in October, 1796, and named in honor of General Moses Cleveland, a native of Connecticut. Originally the town was confined to the eastern bank of the Cuyahoga, at its entrance into Lake Erie, but subsequently Brooklyn, or Ohio City, sprang up on the opposite side, and both parts are now united under one corporation. The greater portion of the city stands on a gravelly plain, at an elevation of 200 feet above Lake Erie.

Cleveland is remarkable for the width of its streets. Many of its secondary thoroughfares are 100 feet wide, and the width of Superior Street is 132 feet. In 1866 *Monumental Park*, which lies in the centre of the town, was, by act of council, opened to the public. By this means, Superior Street was extended in a straight line entirely through the eastern portion of the city, from east to west, for several miles into the country, piercing *Monumental Park* through its centre. On either side of the street elm-trees are to be set out, which, in time, will make it one of the loveliest avenues imaginable. Ontario Street cuts the park through from north to south, so that what was formerly quite a large park, has been reduced to four small plats. In the middle stands the *Monument to Commodore Perry*, cut from Italian marble, at a cost of \$8,000. It was designed and modelled by William Walcott, and unveiled September 10, 1860. On the west side of the river is another handsome park, known as the *Circle*.

The *Cuyahoga River* forms a safe though not very commodious harbor, where it empties into Lake Erie. Piers on either side of the mouth of the river, extending 425 yards into the lake, 200 feet apart, and faced with substantial masonry, materially improve the harbor.

Owing to the elevated situation of the city, travellers, on entering it, along the foot of the bluff, form an unsatisfactory and disagreeable impression of it. They only see those portions devoted to business interests, along the river-bottom or lake-shore. It is only when they have ascended into the city proper, and ridden through its charming streets in car or carriage, that they are able to form a just opinion of it. The profusion of shade-trees with which all its streets, except those devoted exclusively to business, are adorned, has given to Cleveland the title of the "Forest City." Euclid Avenue, lined with elegant residences, each surrounded by ample grounds, is considered one of the handsomest on the continent. Prospect Street is also very beautiful.

The social and municipal institutions of the city are in a highly creditable condition. Especially are the churches numerous, and the schools excellent. Considering the admirable nature of the school system itself, and the number and beauty of the school edifices, Cleveland is unexcelled by any city in the United States. The *First*, *Second*, and *Third Presbyterian*, and *Trinity* (Episcopal) churches, and the *Roman Catholic Cathedral*, are all fine structures. The *Methodist Episcopal Society* has purchased a lot on the corner of Erie Street and Euclid Avenue, upon which it will erect a magnificent church; it has already completed a fine chapel in the rear of the lot.

Among the notable public buildings are the *Cleveland Medical College* ("old school"), established about the year 1843, an imposing structure, on the corner of Erie and St. Clair Streets; and the *Marine Hospital*, on the bank of the lake, near the college.

The *Water-Works* stand near the lake, west of the river, and, by means of two splendid and massive engines, force lake-water into an enormous reservoir, occupying the highest point of ground on the west side, from which it is distributed all over the city.

The *Union Railway Depot* was built by the *Lake Shore, Cleveland & Pittsburgh, Cleveland & Toledo*, and *Cleveland & Cincinnati Railways* in 1866, under the direct supervision of Mr.

Amasa Stone, president of the *Lake Shore* road. It is a massive stone building—one of the largest of its kind in the world—with a bas-relief portrait of Mr. Stone, on the key-stone, over the main entrance, and similar portraits of Grant and Lincoln, besides various symbolical designs upon key-stones at either end of the building.

Case Hall, a beautiful edifice, near the park, was begun by Mr. William Case, and completed by his brother, Leonard Case—after the death of the former—in 1866. It contains, besides the rooms of the *Cleveland Library Association*, and numerous offices and stores, an elegantly-appointed hall, capable of seating 1,500 people.

The *Charity Hospital*, on Perry Street, was built with the contributions of Roman Catholics and Protestants, mostly solicited by Bishop Rappe (Roman Catholic). The *House of Correction*, on the eastern outskirts of the city, is a large and splendid building, for the confinement and utilizing of city offenders. The *Homœopathic Charity Hospital*, on University Heights, was formerly Humiston's Institute.

Cleveland has two beautiful cemeteries: the old one, on Erie Street, and *Woodlawn Cemetery*, on the eastern boundaries of the city. The latter is rich in monuments and statuary. Still another has been laid out, five miles from town, on Euclid Avenue, consisting of a beautiful tract of 300 acres, 250 feet above the level of the lake. It was opened for the sale of lots on June 23, 1870. The wealthiest men in Cleveland are among the directors.

The *Cleveland Library Association* has a library and reading-room in Case Hall. The library contains 80,000 volumes. Early in 1870 the society received a gift of \$25,000 from Mr. Leonard Case. It is intended to change, at an early day, the character of this institution, giving it a higher grade, at the expense, to a great extent, of its popularity; the idea being to make it more than now a dependence of scholars, and persons of cultivated tastes in literature.

In February, 1869, the *Cleveland Public Library* was opened. It is a free, popular library, containing 8,500

volumes, and is supported by an annual tax upon the citizens of one-tenth of a mill, which produced, in 1870, a revenue of \$4,000.

Independent of its large and increasing business by railway and canal, Cleveland carries on a very considerable and important trade with the lake country, more particularly with the mining region of Lake Superior. Eight transportation lines are connected with the port, giving daily steamboat and propeller communication with every important point on the chain of lakes. This is one of the best points of departure for tourist travel to the Lake Superior region. Cleveland has also attained eminence as a ship-building port; several of its barks, built for the Liverpool trade, have excited much admiration in England.

Up to about 1860, the commercial interests of Cleveland were chiefly confined to a canal and lake traffic. Suddenly manufacturing enterprises began to be developed, particularly in the direction of iron and coal-oil manufactories, which are now very heavy interests, and constantly increasing in importance.

In the manufacture of refined petroleum, Cleveland is second to no city in the United States, unless, perhaps, it be Pittsburg.

There are also important manufactories of sulphuric acid, wooden ware, agricultural implements, marble and stone, railroad cars, grindstones, and white lead.

The lumber-trade of Cleveland is also very important.

Some idea of the commerce of Cleveland may be obtained from the statement that the estimated value of the lake, canal, and rail traffic, of 1868, was \$865,000, and that the showing for 1870 was in excess of that sum.

The first street railroad was opened in 1860; now, the city has four different lines, which do an immense business.

The *Academy of Music*, on Bank Street, is the only place where dramatic entertainments are given.

The best hotels are the *Kennard* (formerly Angier), *Weddell*, and *American House*. There are numerous second and third class houses; several of the former are well kept.

Besides the hospitals already enumer-

ated, are the *Wilson Street Hospital*, and the *Perry Street Retreat for Fallen Women*.

The *Cleveland Female Seminary*, on Woodland Avenue, has an enviable reputation among institutions of its class.

In order to obviate occasional foulings of the lake-water, pumped through the supply-pipe of the water-works, into the reservoir, a tunnel, extending under the lake several hundred feet farther than the extreme point of the present pipe, has been built in order to secure a constant supply of pure water. It was completed in 1873, and the cost of the tunnel and crib together was \$166,504. The population of Cleveland, by the census of 1870, was 93,000.

Elyria, O. (628 miles), is a pleasant village, at the forks of the *Black River*, which at this point has two vertical falls of 40 feet, affording a fine water-power, which is utilized by a number of manufactories. The scenery in the vicinity is attractive.

Oberlin, O. (628 miles), is noted for its college, from which no person is excluded on account either of sex or color. This college, founded in 1834, combines manual labor with study, inculcates entire social equality between whites and blacks, and has had a very prosperous career.

Norwalk, O. (658 miles), is a very handsome, well-built village. Its principal street, which is shaded by fine maple-trees, extends along a ridge. The village contains the Norwalk Institute, Norwalk Female Seminary, and other good schools.

Toledo, O. (715 miles), is an important point, and, within a few years, has developed from an inconsiderable village into a large and rapidly-growing city. In 1850, the population was 3,820; in 1860, 13,768; and in 1870, 31,693.

Situated on the Maumee River, 4 miles from a broad and beautiful bay, and 12 miles from Lake Erie, Toledo has always been looked upon as an important lake-port, but, owing to the sparse population around it, together with the impression that it was unhealthy, its development was slow until about 1860, since which time its growth has been marvellously rapid. The enterprise and liberality of the business-men of Toledo have made

it a great railroad and commercial centre. In 1858, the imports of Toledo amounted to \$31,700,085, and the exports to \$33,460,031; in 1869, the imports were valued at \$182,360,700, and the exports at \$198,723,432. The aggregate grain movement at Toledo, in 1869, was 18,660,949 bushels, exclusive of receipts, aggregating 2,789,540 that did not go into elevator. During 1869 there were erected 667 buildings, at a cost of \$1,377,600. The aggregate business of the commission and jobbing-houses (then transacting a business in excess of \$50,000 per annum) was \$44,810,252.

The handsomest buildings in Toledo are those devoted to educational purposes and religion. There are six ward-school buildings, of brick, which cost from \$20,000 to \$30,000, and a central or high-school building—one of the first in the State—which cost, probably, \$60,000. Of churches, there are: Methodist Episcopal, 4; Baptist, 3; Congregational, 2; Presbyterian, 3; Free Methodist, 1; Protestant Episcopal, 2; Roman Catholic, 6; Lutheran, 2; German Reformed, 1.

Manufactories are numerous and important, including 2 car factories—that owned by the Toledo, Wabash & Western Railway Company being one of the most extensive in the country; Manhattan iron-works; 3 steam-engine manufactories; agricultural-implement factory; 4 sash, blind, and door factories; 1 rake-factory; 2 saw and file-factories; 5 breweries; 4 flouring mills; 4 manufactories of carriages, and carriage fixtures, and numerous smaller establishments.

Of railroads, there are seven: *Michigan Div. of the Lake Shore & Michigan Southern Railway*, 243 miles in length—to Chicago; *Air-Line*, 127 miles; *Jackson Branch*, 65 miles; *Toledo & Detroit*, 65 miles; *Dayton & Michigan*, and *Cincinnati, Hamilton, & Dayton*, 202 miles; *Toledo Div. Lake Shore & Michigan Southern*, 112 miles; *Toledo, Wabash & Western*, 490 miles.

HOTELS.—The largest hotels are: *Oliveer House*, *Island House*, *American*, and *St. Charles*.

GRAIN ELEVATORS.—Toledo has 8 grain elevators, the smallest of which has a storage capacity of 125,000 bushels, and

the largest, of 761,000 bushels; aggregate storage capacity of 2,572,000 bushels, and a capacity to receive and ship daily, 400,000 bushels. Another elevator, of iron, was built in 1870.

At Toledo the road branches, one division running through Southern Michigan, and known as the *Michigan Southern Division*, the other running through Indiana, and known as the *Air-Line*. We will consider these branches in the order we have mentioned them, repeating the names of the stations for the convenience of the reader.

MICHIGAN SOUTHERN DIVISION.—STATIONS: Sylvania, 725; Palmyra, 742; Adrian, 747; Hudson, 764; Hillsdale, 780; Jonesville, 785; Quincy, 794; Coldwater, 803; Burr Oak, 820; Sturgis, 827; White Pigeon, 838; Bristol, 849; Elkhart, 857.

Adrian, Mich. (747 miles), is the metropolis of Southern Michigan, and in 1860 was the third city in size in the State, and is at present the fifth. It has a small water-power, which is applied to manufacturing purposes. Many of the stores are large and handsome; there are several beautiful churches, and many large and elegant houses; the streets are well shaded. The *Lawrence Hotel* is a capital house.

Upon the 4th of July, 1870, a monument to the soldiers from Adrian, who lost their lives during the war for the Union, was dedicated. The monument is situated about midway between the depot grounds and the post-office, upon what is known as Monument Square, a fine little park of three acres. It consists of an octagonal base, 15 feet in diameter, and 20 feet in height, a marble shaft 3 feet 9 inches in diameter, and 27 feet high, surmounted by an urn 7 feet in height—making the monument 54 feet in height. The base and urn are made from Amherst sandstone, and the marble shaft was contributed by the United States authorities at Washington, it being one of the pillars of the old Government bank at Philadelphia. The monument bears the following inscription:

"1870.

"Erected by the citizens of Adrian in memory of our fallen soldiers.
"By such as these was our Union saved in the great struggle in '61-'65."

Above the mottoes on the panels of the base are inscribed the names of 77 soldiers from the city who fell during the war.

There is a handsome college in the western part of the town; and the central Union school building, the finest in the West.

The railway repair-shops for this division are located here.

Branch roads to Detroit and Jackson diverge here.

Hudson, Mich. (764 miles), is an active, thriving village on Tiffin's River, possessing no attraction for the tourist.

Hillsdale, Mich. (780 miles), is a place of about 2,000 inhabitants, situated upon the St. Joseph's River. It is the county-seat, and contains several large stores, mills, etc., besides the stone Court-House, several churches, and some handsome dwellings. It also contains a collegiate institution of some local repute, though not ranked as a first-class college.

Jonesville, Mich. (785 miles), is the oldest village in Hillsdale County, and is a prosperous place. It is noted for having one of the best Union schools in the State. The *Waverley House* is well kept.

The *Fort Wayne, Jackson & Saginaw Railway* intersects at this point.

Coldwater, Mich. (803 miles), upon the river of the same name, is the commercial centre of a fine section of country. It is large, prosperous, and attractive. The river affords a good water-power. It is the capital of Branch County. The *Michigan Southern* is a good hotel.

Sturgis, Mich. (827 miles), is a flourishing village of perhaps 1,000 inhabitants, situated on a beautiful prairie of the same name. The *Grand Rapids & Northern Indiana Railway* crosses here.

White Pigeon, Mich. (838 miles), is another prosperous place, in the midst of a fine prairie and farming district. The *St. Joseph's Valley Railway* diverges here.

Bristol, Ind. (849 miles), is very pleasantly situated on the St. Joseph's River. It is a thriving village.

Elkhart, Ind. (857 miles), at

the junction of the Elkhart and St. Joseph Rivers, is a place of over 3,300 inhabitants, possesses a fine water-power, and is one of the principal shipping points for Elkhart County. The *Air-Line* and *Michigan Southern Branches* of the road unite at this point.

The *Railroad Eating-House and Hotel*, at the depot, is a good house. There is a handsome school-building and many fine residences. The railroad company has extensive shops at this place, for manufacturing and repairing locomotives, cars, etc.

AIR-LINE.

STATIONS.—Delta, 708; Wauseon, 715; Stryker, 761; Bryan, 769; Edgerton, 779; Butler, 786; Waterloo, 793; Kendallville, 807; Ligonier, 823; Goshen, 837; Elkhart, 857.

Wauseon, O. (715 miles), one of the liveliest villages in Northwestern Ohio, is 32 miles west of Toledo, on the air-line. It is the capital of Fulton County, and has a handsome court-house, academy, etc. Population 2,000. Good hotel accommodations.

Bryan, O. (769 miles), is an old village, the capital of Williams County. It has two newspapers, a collegiate school, county buildings, etc.; population, 3,000. It is celebrated for its artesian well, from which fish that have no eyes are sometimes ejected. Bryan has two good hotels, an extensive tannery, and a large machine-shop.

Edgerton, O. (779 miles), is a handsome but small village, with a population of 1,200. It is located on the Little St. Joseph's River, a beautiful stream that rises only 18 miles from Lake Erie and flows southward over 100 miles to Fort Wayne, where it joins the Maumee, which flows thence to Toledo, emptying into the lake 20 miles from the source of the St. Joseph.

Between this station and Wauseon the Air-line passes through some finely-undulating, well-watered, and heavily-timbered country.

Butler, Ind. (786 miles), is at the junction of the proposed *Detroit & Eel River Railway*; population, 1,200. It has a handsome school-building and

several churches, a machine-shop, a carriage-manufactory, and extensive stave and cooper works; also woollen-mills and flouring-mills. The name of the place was formerly Jarvis or Varristown.

Waterloo, Ind. (793 miles), is a rapidly-growing village of 1,500 population. It is in one of the finest wheat districts in the West, and its Star Mill is one of the largest and finest flouring-mills in the State. Near here are the famous *sink-holes* or underground lakes; one of which the Air-line crosses, and into which immense quantities of earth, trees, and old ties, were thrown before the track could be made permanent, so that for over ten years the track ran around the sink. The Air-line Sink-hole is 3 miles west of Waterloo, and is about 500 feet across. Here is the crossing of the *Fort Wayne, Jackson & Saginaw Railway*.

Lent's Hotel and *Eagle Hotel* are both good houses.

Several beautiful lakes lie to the north of the station, and *Clear Lake* is a fine summer resort.

Kendallville, Ind. (807 miles), is the largest town in Northeastern Indiana on the Air-line; population 3,000. The *Tremont House* is a first-class hotel.

A beautiful and very deep lake, one mile long, lies on the east side, and a smaller lake on the west. The *Grand Rapids & Northern Indiana Railway* crosses here; and the place is essentially a railroad town. There is a national bank, nine churches, and a splendid school-house.

The village is surrounded by a fine rolling country; and a few miles north of it are the celebrated Hoosier Jean Woolen works and Rome City water-power. Kendallville is the headquarters of the Tenth Congressional District, and most of the conventions are held here.

Ligonier, Ind. (823 miles), is a town of about 1,500 inhabitants. It has a fine school-building and several churches.

Mier's Block is the largest store-building between Chicago and Toledo.

The *Helmer House* is well kept.

A beautiful river flows past the town, and the Air-line crosses the same stream at several points between Ligonier and Kendallville. The Haw-Patch Prairie,

north of this station, is considered one of the finest grain-growing districts in the West.

Goshen, Ind. (837 miles), is the capital of Elkhart County, and is beautifully situated on the right bank of Elkhart River, which furnishes a fine water-power for a number of mills and shops. It contains about 4,000 inhabitants, and is the junction of the Warsaw branch of the *Grand Rapids & Indiana Railway*. The Court-House is well built, and there are many handsome suburban residences. The surrounding country affords the best of roads, and consequently is a natural driving park. The *Julian House* is generally considered the best hotel.

Elkhart, Ind. (857 miles). (See page 21.)

Mishawaka, Ind. (868 miles), on the St. Joseph's River, is surrounded by a rich agricultural country, possesses an excellent water-power, and has a fine public school-building. The works of the St. Joseph Iron Company are situated here. There is an abundance of iron-ore in the vicinity. The river is navigable for small steamboats. The *Milburn House* is considered the best hotel. Population 4,000. A railway is projected which will intersect the *Lake Shore & Michigan Southern Railway*.

South Bend, Ind. (872 miles), the capital of St. Joseph County, is pleasantly situated at the head of navigation on the St. Joseph River, which by means of a dam at this point furnishes an immense water-power for numerous mills, etc. There are a number of churches in the village, which is also the site of *Notre Dame College*—a Roman Catholic institution of considerable note. Population 8,000. The *St. Joseph* is a first-class house.

La Porte, Ind. (899 miles), is on the edge of the prairie of the same name, and is surrounded by an exceedingly rich agricultural country. It is at the junction of a railway extending to Plymouth on the Pittsburg, Fort Wayne & Chicago Railway, and to Peru, the junction of the Indianapolis, Peru & Chicago, and the Toledo, Wabash & Western Railways. The Indiana Medical College is located here; population about 8,000. The best hotel is the *Teegarden House*.

Chicago, Ill. 958 miles). (See page 6.)

ROUTE III.

NEW YORK TO CHICAGO.

Via Allentown Line, which includes the Central Railway of New Jersey, Lebanon Valley, Pennsylvania Central, and Pittsburg, Fort Wayne & Chicago Railways. (Time, 36 hrs.—Fare, \$22.)

As far as Pittsburg, this route has been elaborately described in "APPLETONS' HAND-BOOK OF AMERICAN TRAVEL—NORTHERN AND EASTERN TOUR," and we shall therefore make here but the most general allusions to it.

Leaving New York, the traveller crosses the Hudson River, and, taking the cars of the Central Railway of New Jersey, at Jersey City, is whirled through Elizabeth, Plainfield, Somerville, and other flourishing places; is afforded a glimpse of the mountain-region of New Jersey, and is finally landed at Easton, Pennsylvania, where, without changing cars, he is transferred to the Lebanon Valley Railway, as far as Harrisburg, passing through Easton, Allentown, Reading, and Lebanon, and seeing some of the most attractive landscape in the State. At Harrisburg, the cars of this line take the track of the Pennsylvania Central Railway, which they follow to Pittsburg, in their course, passing over the most attractive portions of the Central Road, including the Susquehanna Valley, the crossing of the Alleghenies, the superb mountain views near Altoona, the valley of the Juniata, and other points of interest.

At Pittsburg we leave the Pennsylvania Central for the *Pittsburg, Fort Wayne & Chicago Railway*, though through-passengers need not change cars if they have taken the precaution to seat themselves in one of the New York and Chicago through-cars. This road passes through some of the richest land in Ohio.

STATIONS.—Pittsburg, 431 miles from New York; Rochester, 457 (junction of Cleveland & Pittsburg Railway); Homewood, 466 (connects with Newcastle Branch); Enon, 477; Columbiana, 491; Salem, 501; Alliance, 515 (crossing of Cleveland & Pittsburg Railway); Canton,

533; Massillon, 541; Orrville, 555 (crossing of Cleveland, Zanesville & Cincinnati Railway); Wooster, 566; Loudonville, 588; Mansfield, 607 (crossing of Sandusky, Mansfield & Newark Railway); Crestline, 620 (crossing of Cleveland, Columbus, Cincinnati, & Indianapolis Railway, and at Galion, four miles south on that road, forms a junction with the Bellefontaine Railway Line); Bucyrus, 632; Forest, 661 (crossing of Cincinnati, Sandusky & Cleveland Railway); Lafayette, 684; Lima, 692 (Crossing of Dayton & Michigan Railway); Delphos, 706; Van Wert, 719; Fort Wayne, 751 (crossing Toledo, Wabash & Western Railway); Columbia, 770; Pierceton, 782; Warsaw, 791; Bourbon, 804; Plymouth, 815 (crossing of Chicago, Cincinnati & Louisville Railway); Wanatah, 846 (crossing of Louisville, New Albany & Chicago Railway); Valparaiso, 855; Clarke, 875; R. I. Junction, 892; Chicago, 899.

Rochester, Pa. (457 miles), is on the left bank of Beaver River, at its mouth, 26 miles below Pittsburg, on the Ohio. This is the junction of the *Cleveland & Pittsburg Railway*.

Homewood, Pa. (466 miles), is a small village, where the *Newcastle Branch* diverges.

Salem, O. (501 miles), is one of the most important towns in the eastern portion of the State. It is a beautiful place, surrounded by a very rich and highly-cultivated farming country, and is interested in manufactures of various kinds.

Alliance, O. (515 miles), though small, is already, on account of its railway connections, a rapidly-growing place, destined to become one of the most thriving in this section of the State. This is the crossing of the *Cleveland & Pittsburg Railway*.

Canton, O. (533 miles), the capital of Stark County, is beautifully situated on the banks of the *Nisuishillen Creek*, surrounded by a rich farming country, which enjoys the distinction of sending more wheat to market than any other county in the State. Good coal and limestone are found in the vicinity, and the advantages afforded for manufacturing, by the fine water-power which the creek furnishes, enhance the prosperity and

importance of the town, which contains a number of manufactories.

Massillon, O. (541 miles), is a flourishing town, situated on the *Tuscarawas River* and the *Ohio Canal*, by which it has water communication with Lake Erie. It is regularly laid out, is substantially and compactly built, and contains many handsome residences. The section of country in which it lies is full of coal and limestone, is abundantly supplied with water-power, and is noted for its agricultural wealth. Massillon is, therefore, a place of considerable trade; and largely exports the cereals. It is also noted for the amount of wool which finds a market here.

Orville, O. (555 miles), is at the junction of the *Cleveland, Zanesville & Cincinnati Railway*.

Wooster, O. (566 miles), is a prosperous and rapidly-growing place. Pleasantly situated on *Killbuck Creek*, it is in the midst of a beautifully undulating country, of which it commands a fine view. It is compactly built, is the capital of Wayne County, and is the seat of several manufactories, and the centre of a large trade.

Loudonville, O. (588 miles), is a flourishing village, with a large local trade.

Mansfield, O. (607 miles), is another of the compactly-built, bustling towns with which the State is dotted. It is situated on a commanding elevation, in a thickly-populated and highly-cultivated region. Many of the residences which it contains are very handsome, and are surrounded by spacious ornamental grounds. Some of the churches are noticeable, and one remarkably so. Mansfield is the capital of Richland County, which latter owes its name to the fertility of its soil. The *Sandusky, Mansfield & Newark Railway* crosses here.

Crestline, O. (620 miles), is a thriving village, which, if not actually the creation of the railways, is mainly indebted to them for its prosperity. The road here connects with the *Cleveland, Columbus, Cincinnati & Indianapolis Railway*, which has absorbed the *Bellefontaine* line, and is often so called.

Bucyrus, O. (632 miles), the capital of Crawford County, is situated on

the *Sandusky River*. It is a thriving village. In its vicinity are several mineral springs, and a well of inflammable gas. An excellent specimen of a mastodon was found in a marsh near here in 1838.

Forest, O. (661 miles), is a village at the junction of the *Cincinnati, Sandusky & Cleveland Railway*.

Lima, O. (692 miles), the capital of Allen County, is situated upon the *Ottawa River*, and is a pleasant place. There is some manufacturing done here. The boast of the village is its handsome Union School building. The *Dayton & Michigan Railway*, now managed by the *Cincinnati, Hamilton & Dayton Railway*, connects here.

Delphos, O. (706 miles), is a thriving village upon the *Miami Extension Canal*, which furnishes a fine water-power.

Van Wert, O. (716 miles), capital of the county of the same name, is a small village, pleasantly situated on a sandy ridge, rising some 20 feet above the level of the plain.

Fort Wayne, Ind. (751 miles), is known as the "Summit City," from the fact that it is the point from which the water runs east and west. It is built upon the site of the "Tightwee village" of the Miami tribe of Indians, at the point where the *Maumee River* is formed by the confluence of the *St. Joseph* and *St. Mary's Rivers*. The *Wabash & Erie Canal* also passes through this place, which is the capital of Allen County. It has grown rapidly, and is one of the most important towns in the State. In 1794 the fort, from which the city takes its name, was built here, and was retained as a military station until 1819. Fort Wayne is an important railway centre, the following roads connecting here: *Toledo, Wabash & Western, Grand Rapids & Indiana, Fort Wayne, Jackson & Saginaw, and Fort Wayne, Muncie & Cincinnati Railways*.

Columbia, Ind. (770 miles), the capital of Whitley County, is upon a branch of *Eel River*.

Warsaw, Ind. (791 miles), is a flourishing place, pleasantly situated on *Tipppecanoe River*. It is the capital of Kosciusko County, and does considerable milling and manufacturing.

Plymouth, Ind. (815 miles), is surrounded by a fine agricultural country, and is advantageously situated upon the bank of *Yellow River*. It is the capital of Marshall County, and does a thriving business. The *Chicago, Cincinnati & Louisville Railway* intersects at this point.

Wanatah, Ind. (846 miles), is a small village at the junction of the *Louisville, New Albany & Chicago Railway*.

Valparaiso, Ind. (855 miles), is the capital of Porter County, and is situated upon *Salt Creek*.

Chicago, Ill. (899 miles). (See page 6.)

ROUTE IV.

NEW YORK TO CHICAGO.

Via Pan-handle Route, which includes the New Jersey Railway to Philadelphia, the Pennsylvania Central, and the Pittsburg, Cincinnati & St. Louis Railway, which includes the Columbus, Chicago & Indiana Central Railways. (Time, 36 hrs.—Fare, \$22.)

FROM New York to Philadelphia this route passes through the rich gardenlands of New Jersey, and is dotted with beautiful towns at intervals of every few miles. It will be found described in *APPLETONS' HAND-BOOK OF AMERICAN TRAVEL—NORTHERN AND EASTERN TOUR*. The trip from Philadelphia to Pittsburg is described in the same volume. A few general remarks in regard to it will be found, as introductory to Route III., in this book.

At Pittsburg, the tourist has his choice of two routes, one of which has just been described, the other is the one which we shall now take. We will therefore commence our detailed description with the *Pittsburg, Cincinnati & St. Louis Railway*.

STATIONS.—Pittsburg, 445 miles from New York; Mansfield (connects with *Chartiers Railway*), 453; Burgettstown, 472; Steubenville (connects with *Cleveland & Pittsburg Railway*), 488; Cadiz Junction, 513; Cadiz, 519; New Market, 522; Dennison, 538; Coshocton, 569; Dresden, 583; Frazeyburg, 589; Newark (connects with *Central Ohio and Lake Erie Divisions of Baltimore & Ohio Railway*), 605; Pataskala, 620; Columbus

(connects with all diverging railways), 638; Pleasant Valley, 656; Milford (connects with *Cleveland, Columbus, Cincinnati & Indiana Railway*), 666; Urbana (connects with *Atlantic & Great Western*, and *Cincinnati, Sandusky & Cleveland Railways*), 685; Piqua (connects with *Dayton & Michigan Railway*), 711; Bradford Junction (the *Indianapolis line* diverges), 721; Pikeville, 731; Union (connects with *Cleveland, Columbus, Cincinnati & Indiana Railway*), 742; Ridgeville, 753; Dunkirk, 765; Hartford, 775; Jonesboro, 788; Marion, 793; Xenia, 805; Bunker Hill (connects with *Indianapolis, Peru & Chicago Railway*), 818; Logansport (connects with *Chicago & Peoria lines*; also with *Toledo, Wabash & Western Railway*), 833; Royal Centre, 845; Winamac, 859; La Crosse (connects with *Louisville, New Albany & Chicago Railway*), 883; Hebron, 898; Crown Point, 908; Schererville, 915; Chicago, 949.

Pittsburg (445 miles), the second city in size in Pennsylvania, is noted for the enormous extent of its manufacturing, coal, iron, and oil interests. It is situated at the point where the Allegheny and Monongahela Rivers unite to form the Ohio. It is fully described on page 123 of *APPLETONS' HAND-BOOK OF AMERICAN TRAVEL—NORTHERN AND EASTERN TOUR*. Crossing the Ohio, the road traverses the neck of land formed by the great bend of the river, passing through a portion of West Virginia, and then crossing the river into the State of Ohio.

Steubenville (488 miles) stands upon an elevated plain, on the west bank of the Ohio River, which, at this point, runs north and south, and is one-third of a mile wide. Being the county-seat of Jefferson County, it contains the county buildings. It has a number of churches, mills, and manufactories, and is the centre of an extensive trade. It is the seat of an academy for boys, and of a noted female seminary, the latter being delightfully situated on the banks of the river. The scenery in the vicinity is very attractive. Connection is here made with the *Cleveland & Pittsburg Railway*.

Cadiz Junction (513 miles) is where the *Cadiz Branch*, 6 miles in length, diverges.

Cadiz, O., county-seat of Harrison County, reached by the Cadiz Branch, is pleasantly situated in the midst of hills, containing valuable coal-mines. It is well built, and is the principal market of one of the greatest wool-producing regions of the State.

Coshocton, O. (569 miles), the capital of the county of the same name, is built upon four natural terraces, rising one above the other, on the left bank of the *Muskingum River*, which is formed by the junction of the Tuscarawas and Walhonding Rivers, just above the village. The *Ohio Canal*, connecting the Ohio River with Lake Erie, passes through the village, and furnishes a good water-power.

Dresden (583 miles) is a place of great business activity, at the head of navigation on the *Muskingum River*. It possesses a fine water-power, and is surrounded by coal and iron mines. It is connected with the Ohio Canal by a branch two miles in length.

Newark, O. (605 miles), is situated on a level plain, at the junction of the three forks of the *Licking River*, and in the midst of a rich agricultural country. It is a handsome place, the streets being wide, and the stores, churches, dwellings, etc., well built. It is a manufacturing as well as a commercial place; is upon the line of the Ohio Canal; is within 8 miles of a fine bituminous coal-mine; is the capital of Licking County, and is quite a railway centre, the *Central Ohio, Branch of the Baltimore & Ohio, and Sandusky, Mansfield & Newark Railways*, connecting with the *Pittsburg, Cincinnati & St. Louis Railway*, at this point.

Columbus, O. (638 miles), is not only the capital, but is, in other respects, one of the most important cities of the State. Its population, by the census of 1870, does not vary more than a few hundreds from 32,000. A large and populous suburb which belongs to the city proper, but is outside the corporation limits, is not included. The streets are very wide, and are all regularly laid out in squares. Broadway is 120 feet wide, for a distance of over two miles in length. It has a double avenue (four rows) of trees, alternate maple and elm, and is one of the most beautiful streets in the

world. Many of the handsomest residences in the city are on this street. High, the principal business street, and some others, are 100 feet wide. There is a mile of Nicolson pavement on High Street, and another mile of wooden block pavement on Town Street, which competes with Broad for fine residences. In the centre of the city, occupying the square of ten acres, between High and Third, and Broad and State, is *Capitol Square*, surrounded by majestic elms, and beautifully laid out. It is purposed to make it a complete arboretum of Ohio trees, of which many varieties are already represented.

The *Capitol* building is one of the finest possessed by any State in the Union. It is a classical structure, in the Doric order, with a dome. It is constructed of limestone, resembling marble, from the State quarries only three miles distant. It has a façade of more than 300 feet. Elevation to the top of rotunda, 157 feet; depth, 184 feet; superficial area, 55,936 square feet. The other State buildings here are:

The *State Penitentiary*, situated upon the left bank of the Scioto River, just below the mouth of the Olentangy, a large and imposing collection of buildings, covering ten acres, to which ten acres have been added recently, for an enlargement. The main building fronts the entire ten acres, with an imposing limestone structure, in castellated style, Italian in the centre. Most of the mason-work of both the Penitentiary and the Capitol was done by convicts.

The *Central Ohio Lunatic Asylum* was burned in November, 1868, and in 1870 the old grounds were sold for \$200,500, and a new and elegant series of buildings, *en échelon*, commenced on 300 acres of elevated ground, west of the city. These buildings will be in the Franco-Italian style, with a frontage of about 1,200 feet, depth of 300; centre tower, 165 feet high; capacity for 600 patients; and fine quarters for officers and attendants as well. Adjoining these grounds, to the south, are the grounds (123 acres) of the *Idiot Asylum*, a plain Gothic structure, 272 by 198 feet; tower, 132 feet high.

The new *Blind Asylum*, on the grounds

of the old in the eastern part of the city, will be a building 340 by 270 feet, a fine specimen of Gothic architecture (in stone) of the Tudor period.

The *Deaf and Dumb Asylum* is centrally located on large and handsome grounds on Town Street. It is built in Franco-Italian style, with a Mansard roof. It has a magnificent frontage on Town Street of 400 feet, and runs back 380 feet. It has numerous towers, the centre one of which is 140 feet high. The building has a superficial area of *twenty-two million* feet. The State has also a large well-built arsenal.

The *United States Arsenal* is quite a feature. It is located on large and handsome grounds, beautifully wooded. It is in the northeastern suburb of the city, on the line of the Panhandle and Central Ohio Railroads. There are numerous buildings, offices, quarters, armory, store-houses, and an immense central structure, a detailed description of which would occupy too much space. There is a fine drive to the arsenal, and there are beautiful drives laid out through and around the grounds.

The city has the *City-Hall*, facing Capitol Square on the south side of State Street—a building in pure Gothic, adapted to modern wants and uses, 187½ feet by 80. It has a small central tower 138 feet high. Height to ridge of roof, 98 feet. The first and second stories are devoted to rooms for various public uses. In the third story is the audience-chamber, with seats for 2,830—one of the largest in the Union. The *High School* is a fine building in the simple Norman or church architectural style. There are numerous other public-school buildings in Italian style, poorly treated.

The *Holly Water-Works* building is near the junction of the Scioto and Olentangy. It is 132 by 98 feet. Stack 110 feet high. Machinery 500 horse-power, with rotary engine of 400 horse-power extra, and two rotary-engine pumps for fire purposes only.

The city owns other unimportant buildings, including the old city-hall and market-house, city prison, engine-houses of steam fire department, several of the six bridges across the Scioto, etc. It also owns the beautiful *Goodale Park*,

given by Dr. Lincoln Goodale, consisting of about 40 acres of native forest beautifully improved and well kept, with buildings for superintendent. This park is at the north end of the city. At the south end the city owns about an equal quantity similar in all respects, called the *City Park*. It also owns the very extensive and costly sewerage system of the city.

The county (*Franklin*) owns only a very poor *Court-House* with county offices attached, and a worse *Poor House* or *County Infirmary*—which has recently been replaced by a fine structure on a large farm recently purchased near the city.

There are several other charities with buildings of no note, but doing good work, and all out of debt. The *Hare Orphans' Home*, the *Hannah Neil Mission*, and *Lying-in Hospital* may be mentioned. The beautiful female seminary *St. Mary's of the Springs* adjoins the city on the east near the *Water-Cure*. There is also a *Catholic Asylum for the Reclamation of Fallen Women* west of the city, and the *Sisters of Mercy* have a fine hospital in the city.

Starling Medical College is the delight of architects, as one of the finest specimens of Norman castellated architecture extant.

Capital University is a rather unpretending building in Italian style, surrounded by beautiful grounds in the northern part of the city.

The *Odd-Fellows' Hall* is a fine specimen of classical Italian, and opposite is the *Opera-House Block*, a beautiful sample of American street architecture, in the florid Italian style.

The *Opera-House* in this block has been spoken of by Mr. Jefferson, Mr. Forrest, and other eminent actors, as one of the most beautiful and chaste in design anywhere in this country.

Churches are numerous, and some are fine specimens of the decorative period of Gothic architecture.

The grounds of the *Franklin County Agricultural Society* (83 acres, mile track), on the eastern border of the city, are the finest in the State. *Olentangy Park* has a fine half-mile ring north of the city. There are several cemeteries, the most beautiful one being *Green Lawn*.

The city has a large wholesale trade, and its manufactures reach every State in the Union, and every country on the continent. There is a considerable export trade direct to Europe of manufactures of various kinds.

The opening of the *Columbus & Hocking Valley Railway* in August, 1870, was the greatest event in the history of Columbus. No other of its numerous roads has done nearly as much for it. The *Hocking Valley* penetrates a very rich iron and coal region, and already capital is seeking investments in rolling-mills, furnaces, and all manufactures of iron. The population of Columbus has nearly doubled since the last census, by steady, permanent growth. The census of 1870 finds the city only on the threshold of the increase to result from the opening of the mineral resources of Southern Ohio by the *Hocking Valley* road, which is already one of the heaviest feeders of all other roads centring here. The *Pan-handle* and *Little Miami* Railways have extensive shops here.

The following railroads centre at Columbus: The *Cleveland & Columbus*; the *Central Ohio*; *Pittsburg, Columbus & Cincinnati*; *Little Miami and Columbus & Xenia*; *Columbus, Chicago & Indiana Central*; *Columbus & Hocking Valley*. These roads have recently been consolidated under the management of three great lines, with the exception of the *Hocking Valley* and its branches. The *Baltimore & Ohio* absorbs the *Central Ohio*. The *Pittsburg, Cincinnati & St. Louis Railway* (*Pan-handle Route*) absorbs all the roads popularly known as "The Ben Smith roads," and the same road operates the *Little Miami* and *Columbus & Xenia*. The *Bee Line, Cleveland, Columbus & Indianapolis Railway* takes all the rest. Columbus has no water transportation, except by branch of the *Ohio Canal*, an important carrier of heavy freights, connecting the city with *Portsmouth* and all intervening points to *Cleveland*.

Milford, O. (660 miles), is the point of intersection with the *Springfield Branch of the Cleveland, Columbus, Cincinnati & Indianapolis Railway*. It is a thriving village upon *Big Darby Creek*.

Urbana, O. (685 miles), is a

charming village in which some manufacturing is done and which contains several churches, banks, and a *Swedish-borgian college*. It is the capital of *Champaign County*. Connections are made here with the *Cincinnati, Sandusky & Cleveland Railway*, and the *Atlantic & Great Western Division of the Erie Railway*.

Piqua, O. (711 miles), is noted for its charming situation on the west bank of the *Great Miami River*, just at a bend which leaves a level plateau between the town and the water's edge, while on the opposite side the bank rises somewhat boldly. The town is regularly laid out, and contains a number of churches, several newspaper offices, and a town-hall. There is a large business done here with the surrounding country, which is rich in agricultural products. This is also an important manufacturing and milling point, steam being employed for this purpose as well as the water-power afforded by the river. The *Miami Canal* passes through *Piqua*, and the *Dayton & Michigan Railway* connects at this point.

Bradford Junction, O. (721 miles), is where the road branches, one division running to *Indianapolis, Ind.*, the other to *Chicago, Ill.*

Union City, Ind. (742 miles), is upon the boundary-line of Ohio and Indiana, being partly in *Darke County, Ohio*, and partly in *Randolph County, Indiana*. It is a thriving little place. The *Cleveland, Columbus & Indianapolis Railway* connects here.

Marion, Ind. (793 miles), is a flourishing village on the *Mississinewa River*, surrounded by a rich farming country.

Bunker Hill, Ind. (818 miles), is a small village at the crossing of the *Indianapolis, Peru & Chicago Railway*.

Logansport, Ind. (833 miles), is the capital of *Cass County*. It is a thriving city, possessing great advantages from its railroad connections, and from its situation on the *Wabash River and Canal*, at the mouth of *Eel River*. It is an important shipping-port for grain, pork, and lumber, and is the centre of trade for a rich agricultural region. It also has a valuable water-power, which to some extent is used for manufactures.

The Court-House, one of the finest in the State, is built of cut stone. Three of the churches and many other buildings in the city are also of stone.

The car-works owned by the Pittsburg, Cincinnati & St. Louis Railroad Company occupy twenty-five acres, on which are nine buildings. Six hundred workmen are employed. Three cars per day can be turned out at these shops.

The *Toledo, Wabash & Western Railway* connects here; also the *Chicago and Peoria lines*.

Winamac, Ind. (859 miles), is situated upon the *Tippecanoe River*, and is the capital of Pulaski County.

La Crosse, Ind. (883 miles), is a village at the junction with the *Louisville, New Albany & Chicago Railway*.

Chicago, Ill. (949 miles). (See page 6.)

ROUTE V.

NEW YORK TO CINCINNATI.

Via Erie Railway. (Time, 30 hrs.—Fare, \$20.)

As far as Salamanca, New York, this is identical with Route II. (See page 15.) From Salamanca to Clarksville, Pa., it passes through the oil-regions of Pennsylvania, and has been described as Route III., page 130, APPLETONS' HAND-BOOK OF AMERICAN TRAVEL—NORTHERN AND EASTERN TOUR. *Corry* and *Meadsville* are the principal stations in Pennsylvania.

STATIONS.—New York—Orangeville, 555 miles; Burghill, 558; Baconsburg, 567; Warren, 575; Leavittsburg (junction of Branches to Cleveland, and to Youngstown and Sharon), 578; Braceville, 582; Calhoun, 587; Ravenna (connects with Cleveland & Pittsburg Railway), 599; Kent, 605; Tallmadge, 611; Akron (connects with Cleveland, Mount Vernon & Delaware Railway), 616; Wadsworth, 629; Seville, 640; Burbank, 645; West Salem, 652; Polk, 658; Ashland, 666; Windsor, 674; Mansfield (connects with Sandusky, Mansfield & Newark Railway, and Pittsburg, Fort Wayne & Chicago Railway), 682; Ontario, 690; Galion (crossing of the Cincinnati Division of the Cleveland, Columbus, Cincinnati &

Indianapolis Railway), 697; Caledonia, 709; Marion (connects with Cleveland, Columbus, Cincinnati & Indianapolis Railway), 718; Berwick, 724; Richwood, 732; Newton, 742; North Lewisburg, 752; Mingo, 757; Urbana (connects with Pittsburg, Cincinnati & St. Louis Railway, and Cincinnati, Sandusky & Cleveland Railway), 766; Bowlesville, 773; Springfield, 780; Osborne, 791; Dayton (connects with Dayton and Western Railway), 801; Middletown, 826; Hamilton (connects with Cincinnati & Indianapolis Junction Railway), 836; Cincinnati, 861 (connects with railways diverging, and with steamer-lines on the Ohio River).

Orangeville, O. (555 miles), is a small village, and is the first station on this line in Ohio.

Warren, O. (575 miles), the capital of Trumbull County, is quite a handsome village on the *Mahoning River*, and on the *Pennsylvania & Ohio Canal*. It contains several founderies and mills, and is the business centre of one of the most noted cheese-producing sections of the State. In the vicinity there is abundance of coal and iron-ore.

Leavittsburg, O. (578 miles), is the junction of branches to Cleveland, and to Youngstown and Sharon.

Ravenna, O. (599 miles), is situated on the *Pennsylvania & Ohio Canal*, which furnishes a good water-power. It is the capital of Portage County, and is noted for its manufactures, the chief of which is carriage-making. It is the point of shipment for large quantities of cheese, wool, grain, and butter. The *Cleveland & Pittsburg Railway* connects at this point.

Akron, O. (616 miles), one of the most attractive and thriving places in the State, is the capital of Summit County, and possesses unusual advantages, being at the junction of the *Ohio & Pennsylvania* and the *Ohio & Erie Canals*, which afford ample means of shipment for the immense quantities of grain which are grown in this region. The canal and the *Little Cuyahoga River* furnish a fine water-power for a large number of mills, factories, and other mechanical establishments. In the vicinity are large beds of mineral fire-proof paint, which is being used in different parts of the country. The situation is a fine one, being 400 feet

above the level of Lake Eric, 26 miles distant. The *Cleveland, Mount Vernon & Delaware Railway* connects at this point.

Ashland, O. (666 miles), is the capital of Ashland County, which for fertility is unsurpassed by any portion of the State. A large general business and some manufacturing are done here. The village is very pretty.

Mansfield, O. (682 miles), is the junction with the *Sandusky, Mansfield & Newark*, and the *Pittsburg, Fort Wayne & Chicago Railway*. (See page 24.)

Galion, O. (697 miles), is a rapidly-growing village at the crossing of the *Cincinnati Branch of the Cleveland, Columbus, Cincinnati & Indianapolis Railway*.

Caledonia, O. (709 miles), is on the west branch of *Whetstone River*, and is a milling village.

Marion, O. (709 miles), the capital of the county of the same name, is a prosperous village, which is steadily growing. It is the junction of the *Cleveland, Columbus, Cincinnati & Indianapolis Railway*.

Urbana, O. (766 miles). The *Cincinnati, Sandusky & Cleveland*, and *Pittsburg, Cincinnati & St. Louis Railways* connect here. (See page 28.)

Springfield, O. (780 miles), one of the most beautiful cities in the State, is the capital of Clarke County, and is situated at the confluence of *Lagonda Creek* and *Mad River*, both of which furnish a capital water-power, their combined capacity being estimated at a constant supply for 150 run of stones. The manufacturing and milling interest is large. Springfield is surrounded by a very fertile and highly-cultivated country, from which it derives a large and profitable trade. Many of the stores and residences are elegant, and it also contains some handsome churches. A short distance from the city is located *Wittenburg College* (Lutheran), surrounded by spacious grounds. Five miles west of Springfield Tecumseh, the great Indian chief, was born.

Springfield has acquired quite a reputation for the manufacture of the turbine water-wheel and the finest description of agricultural machinery. Its reapers and mowers are unexcelled on the continent for perfection, style, and finish.

Connection is made here with the Springfield branch of the *Cleveland, Columbus & Cincinnati Railway*, and with a branch of the *Little Miami Railway*.

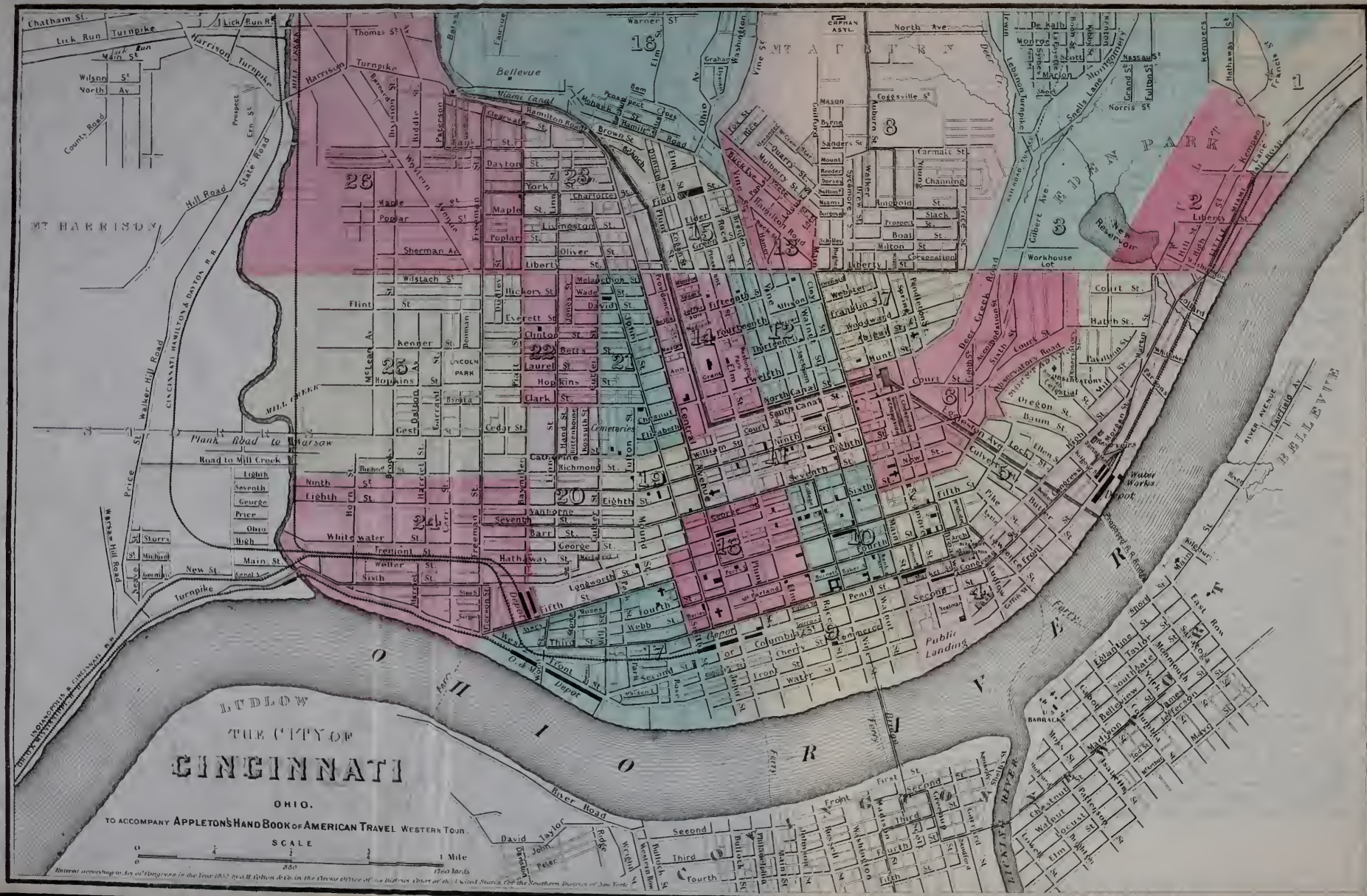
Dayton, O. (801 miles), is upon the east bank of the *Great Miami River*, at the mouth of the *Mad River*, and is one of the most charming cities in the country; its streets are broad, and well shaded, crossing each other at right angles, and, as a rule, being kept in the best condition. It is noted for the elegance of its private residences, many of which are surrounded by spacious and highly-ornamented grounds. Of its 40 odd churches, some are models of symmetry and beauty.

It is the capital of Montgomery County, and contains the public buildings, among which the *Court-House* is particularly noticeable as one of the finest in the West. It is upon the model of the Parthenon, is 127 feet long, 62 wide, and is built of white marble, large quarries of which exist in the vicinity, and which, together with a fine quality of limestone, also found in the neighborhood, is largely used for building purposes, both in Dayton and in Cincinnati.

The most attractive feature of Dayton to the tourist is the *Central National Soldiers' Home*, situated on a beautiful elevation, four miles out of the city, and reached within a few hundred yards by a new horse-railway. The Home is an extensive group of fine large buildings, over forty in number, including a handsome church, built of native white limestone, and a splendid hospital, recognized by the highest medical authority as the best adapted to its purpose in the United States. The latter is of red brick, with freestone facings and trimmings, and accommodates three hundred patients. A brick dining-hall, with a kitchen capable of seating 3,000, the largest in the United States; a fine library, music-hall, billiard-room, bowling-alley, headquarters building, and several barracks for the men, complete the list of buildings.

The grounds embrace an area of 640 acres, well shaded with natural forest-trees, and are handsomely laid out, with sweeping avenues, deer-park, stocked from Lookout Mountain, a beautiful artificial lake, natural grotto, hot-houses,





and flower-beds. The land was given to the Government by the citizens of Dayton, and is so improved and beautified by the taste and industry of the Board of Managers, and the inmates, that it is spoken of with pride by the entire people of the State. The Home is constructed on the expansive principle, and now accommodates about 2,000 disabled soldiers, over two hundred of whom are in the hospital. The death-rate, from old wounds, and disease contracted during the war, is five per week, or 260 annually.

Dayton possesses an immense water-power, which is highly improved, the water of *Mad River* being brought into the city by a hydraulic canal. It is noted for the number and magnitude of its manufactures, especially of railroad cars, paper, stoves, and hollow-ware. It is upon the Miami Canal, and is one of the four largest cities in the State, the population being between 30,000 and 40,000. Connections are made here with the *Cincinnati, Hamilton & Dayton*, *Dayton & Michigan*, *Cincinnati, Richmond & Chicago*, *Dayton, Xenia & Western*, and *Cincinnati, Sandusky & Cleveland Railways*.

Hamilton, O. (836 miles), is the capital of Butler County, and is situated on both sides of the *Miami River*. By means of a hydraulic canal, a water-power sufficient for 166 run of stones is secured, which gives to the city great advantages as a manufacturing place. The neighboring country is rich and populous. The *Cincinnati & Indianapolis Junction* and the *Cincinnati, Richmond & Chicago Railways* connect here.

Oxford, O., lies about 14 miles northwest of Hamilton, on the last-named road, and is famous as a seat of learning.

Miami University, one of the oldest and most reputable in the State, and two large academies, one conducted on the Mount Holyoke plan, and the other under the auspices of the Presbyterian Church, together with three minor educational institutions, claim distinction and consideration for this handsome little village, situated in the fertile valley of *Whitewater*.

CINCINNATI, OHIO.

Cincinnati (861 miles from New York) is known as the "Queen City," a title

it well deserves, from its situation, size, and beauty. The city has a frontage of 10 miles on the north bank of the *Ohio River*, and extends back for about 2 miles, occupying half of a valley bisected by the river, and extending to the base of the vine and villa crowned hills, which form a beautiful natural amphitheatre, containing, besides Cincinnati, the cities of *Newport* and *Covington, Kentucky*, the two being separated by the *Licking River*, which empties into the Ohio, opposite to Cincinnati, and over which a suspension bridge is thrown, thus bringing the three cities into direct intercourse by street-railroad lines.

Cincinnati is principally built upon two terraces, the first 50 and the second 108 feet above low-water mark. The latter has been graded to an easy slope, terminating at the base of the hills.

The streets are laid out with great regularity, crossing each other at right angles, and of an average width of sixty-six feet. The business portion of the city is compactly built, and in the architectural elegance of its stores, and especially those devoted to wholesale business, equals that of any city on the continent. A fine drab freestone is the material chiefly used, and great attention is paid to uniting beauty of design with solidity of construction. Great foresight and public spirit are shown by its citizens in beautifying the streets, and in laying out its broad and handsome avenues and parks.

The history of Cincinnati is of some interest, although a century has not yet elapsed since the first settler moored his flat-boat, and became the founder of the "Queen City." This was in 1788, and, for a number of years, a continual series of difficulties with the Indians retarded the progress of the town, and many a story of savage raids, of midnight alarms, and of fearful barbarity, is still related by the descendants of the early residents. In 1800 it had grown to 750 inhabitants, and in 1819 it was incorporated as a city. About 1830 the *Miami Canal* was built, and in the next ten years the population increased 85 per cent. In 1840 the Little Miami, the first of the many railroads now centring in Cincinnati, was built, and in 1850 the population had increased

from 46,382, to 115,436. In 1869 it was estimated at 230,000, but the census of 1870 shows it to be a little less than 220,000.

On the 5th of September, 1862, martial law was declared in the city, and the scenes which followed, during what is known as the "Siege of Cincinnati," will be remembered as long as the city exists. The Confederate troops were rapidly advancing on the place, and, as the General Government could spare no forces to meet them, capture seemed inevitable, but the people rallied to their own defence. In one day and night, a pontoon bridge was thrown across the River (the suspension bridge across the Ohio not being completed), and the next morning a steady column of men were marching across to the Kentucky shore; lawyers and actors, merchants and clergymen, doctors and carmen, laborers and clerks, in fact, all, without any distinction of color or profession, went to the front with pick and shovel, with rifle and shotgun. From the interior of the State came a brigade of squirrel-hunters (farmers and their boys), each with his rifle, his pouch filled with bullets, his horn of powder, and his box of "greased patches;" intrenchments were rapidly thrown up, the river-steamers were turned into extempore gunboats, and heavy batteries were constructed on all the eminences for miles around. Happily, however, the city was not besieged.

HOTELS AND RESTAURANTS.

HOTELS.—The hotels of Cincinnati are numerous, and some of them of great elegance, while, as a rule, they are noted for the excellence of their fare. The following are considered the best, and one cannot go amiss in visiting any of them:

The *Burnet House* has a front of 212 feet on Third and 210 feet on Vine Street. It is built in the Italian style of architecture, and for many years has been noted for its splendid appointments. It is one of the oldest and best patronized hotels in the city, and one of the best appointed in the West.

The *Gibson House*, on the west side of Walnut Street, between Fourth and Fifth Streets, opposite to the Merchants' Ex-

change and Young Men's Mercantile Library, is admirably arranged.

The *Spencer House*, on the northwest corner of Broadway and the Public Landing, is large and elegantly appointed, and is popular with Southerners.

The *St. James Hotel*, on Fourth Street, corner of Hammond and east of Maine Street, is a popular and fashionable house.

The *Walnut Street House*, on Walnut, corner of Gano, between Fifth and Sixth Streets, is very large, and is noted for the elegance and size of its dining-room.

The *Carlisle House*, corner of Mound and Sixth Streets, is a well-conducted house, upon the European plan.

The *Merchants' Hotel*, Fifth Street, east of Main; the *Galt House*, southwest corner of Sixth and Main Streets; and the *Metropolitan Hotel*, on the west side of Main Street, below Second, are all good hotels.

RESTAURANTS.—There are many excellent restaurants in Cincinnati, where the visitor is sure of good eating at fair prices. Among them the following are the best for ladies:

Keppeler's, on Fourth Street, between Plum Street and Central Avenue, has a large and elegant stone front. There is an extensive saloon and confectionery on the ground floor, and apartments in the upper stories for families or individuals. It is conducted on the European plan.

St. Nicholas.—This establishment is on the corner of Fourth and Race Streets, and furnishes saloon and restaurant accommodations.

Schmidt's, corner of Seventh and Race Streets, and

Becker's, on Mound Street, near the Carlisle House, sums up the most convenient and accessible restaurants of Cincinnati for lady visitors.

CONVEYANCES.

The means of getting from point to point in Cincinnati are by carriages and street railways.

STREET RAILWAYS.—These are eight in number, and the fare is fixed at a uniform rate of six cents, except to Mount Auburn, Cumminsville, and Spring Grove Cemetery, when higher rates are charged.

The Covington and Newport City Rail-

ways cross the Suspension Bridges, and persons wishing a fine view of the river and the three cities, as well as the bridges, can procure it cheaply and easily by taking a car at the end of the Cincinnati bridge.

HACKS.—There are practically no restrictions on the charges of the hackmen, as the legal scale of prices was established before the war, and no one pays any attention to it. As a matter of self-protection, and to avoid trouble, it is advisable to make a bargain before starting.

BRIDGES.

The pride of Cincinnati is the great *Suspension Bridge* across the Ohio, designed and built under the supervision of the late John A. Roebling. This bridge, which is upon the same plan as the Niagara Suspension Bridge, is suspended between two towers, one in Cincinnati, and one in Covington, each 200 feet high. From tower to tower, is 1,057 feet, the span being the largest in the world; the entire length is 2,252 feet, and its height above low water is 100 feet. By taking the cars at Front Street, in an hour's ride one may pass over this bridge, over the one between Covington and Newport, and return to the starting-point, having been in two States, and three cities, and having crossed two navigable rivers.

A very handsome *Railroad Bridge*, which was completed in the year 1871, unites Butler Street, in Cincinnati, with Saratoga Street, in Newport. There are 8 piers and 7 spans. The bridge is of wrought-iron, except the floor, which is of wood. It is arranged for carriages and pedestrians as well as railway-trains.

The Licking Bridge.—This is a wire suspension bridge across the Licking River, just above the mouth, connecting the cities of Covington and Newport, Kentucky. It was the longest span in the West before the magnificent structure already alluded to was put up, and, since that improvement, has been called into double use by residents and visitors to the United States Barracks, which grew out of a small military post in the pioneer times of Cincinnati. The view, day or night, from this bridge, is impressive.

PLACES OF AMUSEMENT.

Pike's Music Hall, one of the most elegant in the country, is on Fourth Street, between Vine and Walnut. Pike's Opera-House was entirely destroyed by fire in 1866, but was rebuilt for business purposes, with the Music Hall in the second story. The style of architecture is of the Elizabethan era, highly ornamented, and the material used is fine sandstone.

The National Theatre, the "Old Drury" of Cincinnati, is on Sycamore Street, between Third and Fourth Streets. It is very large, and possesses all the necessary facilities for producing the most elaborate dramatic and scenic effects.

Wood's Theatre, corner of Sixth and Vine Streets, is a small theatre with a very contracted stage, but is regularly occupied by good dramatic companies.

Mozart Hall, devoted to lectures and concerts, is in the German Catholic Institute, on Vine Street, at the corner of Longworth Street. It has a seating capacity for 3,000, and is provided with a good stage, scenery, etc., but is not used regularly as a theatre.

The other public halls are the *Melodeon*, corner of Fourth and Walnut Streets; *College Hall* (new), in College building, Walnut Street, above Fourth; *Greenwood Hall*, in the Mechanics' Institute, corner of Sixth and Vine Streets; and the large halls "Over the Rhine," noticed under that head. *Hopkins's Music Hall*, corner of Fourth and Elm Streets, completes the list of halls where public entertainments of a first-class character are given.

The Gymnasium, on Fourth Street, is one of the most perfect in the country. It contains a splendid exercising room, a handsomely-furnished reading-room, and commodious bath-room. The association has over 1,200 members.

The Queen City Skating-Rink, on Freeman Street, between Laurel and Betts Streets, is at all times an attractive resort.

The Union Skating-Rink, west of Lincoln Park, is devoted to base-ball in the summer.

CHURCHES.

There are about 150 large churches in Cincinnati, some of them remarkable for architectural taste, and the arrangements

for securing comfort to the congregations worshipping in them.

The most attractive are the following: *St. John's* (Episcopal), corner of John and Seventh Streets; *St. Paul's* (Methodist Episcopal), corner of Seventh and Smith Streets, built of native blue limestone, faced with the beautiful white Dayton stone; *First Baptist*, on Ninth Street, between Vine and Race Streets; *Trinity* (Methodist Episcopal), Ninth Street, between Race and Elm Streets; *First Presbyterian*, Fourth Street, between Main and Walnut; *Central Presbyterian*, Mound Street, between Sixth and Seventh Streets. *St. Peter's Cathedral* (Roman Catholic), the *Synagogue*, the *Reformed Presbyterian*, the *First Congregational*, and the *Central Christian* churches stand on three sides of the square of which the city buildings, and a neat little park, form the fourth side, the whole rendering that part of the city very attractive. This square lies between Eighth and Ninth and Plum Streets, and Central Avenue. The Jews have also a second and equally handsome synagogue, corner of Eighth and Mound Streets; and the Society of Friends have a very neat new meeting-house on the diagonal corner.

Services are held in the synagogues every Saturday morning at ten o'clock.

St. Xavier's Church (Roman Catholic), on Sycamore Street, between Sixth and Seventh Streets, although unfinished as to the spire and towers, is interiorly one of the handsomest specimens of Gothic architecture in the West.

PARKS AND PUBLIC SQUARES.

Eden Park is on a hill to the east of the city, commanding magnificent views of the city, the valley of the Ohio, and the surrounding country. It is not yet completed, but the main avenues have been surveyed, and partially graded. The new reservoir of the water-works is located here, and will have the effect of a large and beautiful lake. The area of this park is 160 acres, and the natural advantages are so great that the expense of improving and beautifying it will be comparatively small. The centre of the ground is very undulating, and every opportunity is afforded for the construction of artificial lakes, rivulets, cascades,

grottos, bridges, and all those other acccessions which combine to make a public park a desirable resort.

Washington Park, one of the oldest pleasure-grounds in the city, formerly a cemetery, is on the north side of Twelfth Street, between Race Street and the Miami Canal. It is a beautiful and attractive spot.

Lincoln Park is on the west side of Freeman Street, north of Clarke, and is beautiful and extensive, with a lovely miniature lake and island, and sweeping avenues.

City Park is on Plum Street, north of Eighth, in front of the City Buildings.

Hopkins's Park is at the corner of Saunders Street and Mount Auburn Avenue. It is small, but tastefully laid out, and adds much to the beauty of that charming suburb. This park was given to the city by S. C. Hopkins, on condition that it should be used as a park, and kept in good condition.

PUBLIC AND PROMINENT BUILDINGS, AND PLACES NOT OTHERWISE CLASSIFIED.

MUNICIPAL.—The *City Buildings* and the grounds attached occupy the square between Eighth and Ninth Streets, fronting on Plum Street. The buildings are large and handsome, and are set off by the trim little park, with a fountain in the centre, already mentioned.

The *Court-House* is a large and imposing structure of Dayton stone, fronting on Main Street north of Ninth Street. The interior arrangements are quite in keeping with the handsome exterior. Ample accommodations are provided for the courts, and one of the finest law libraries in the United States is to be found within its walls. The jail is in the rear, and is connected with the court-house by a subterranean passage.

The *House of Refuge* is situated in Mill Creek Valley, one mile north of the city limits. It has a front of 277 feet, and consists of a main building and two wings. The main building is 85 by 55 feet, and each of the wings is 96 by 38 feet. There are towers at the extremities of the main building and the wings. The buildings are of blue limestone, trimmed with white Dayton stone. Nearly six acres

of ground surrounding the buildings are enclosed by a stone wall 20 feet high. This institution is for the reformation of young criminals.

The *City Work-house* is near the House of Refuge. It was commenced in 1867, and is now completed and in operation. The main building is 510 feet long, containing 600 apartments, the workshops forming a hollow square in the rear, and is one of the most imposing edifices about the city.

NATIONAL.

Custom-House and Post-Office.—This is a handsome stone edifice on Fourth Street, at the corner of Vine. The United States courts, Government depository, and other offices, are in the building.

EDUCATIONAL AND CHARITABLE.

Cincinnati College is on Walnut Street, between Fourth and Fifth. It is a white limestone building of the Doric style of architecture, and its dimensions are 140 by 100 feet. It was originally founded as a regular college, was afterward suspended, was then revived as a college and medical school, and is at present a law school. It has an unincumbered property of \$200,000, and the income is accumulating as a fund to found a free university. The building is in part occupied as a public hall, and by the Young Men's Mercantile Library Association.

The *Medical College of Ohio*, on Sixth Street, between Vine and Race Streets, is a well-appointed institution.

The *Miami Medical College*, on Twelfth Street, near the Cincinnati Hospital, founded nearly twenty years ago, is a flourishing institution. One of its founders was the late Prof. R. D. Mussey, famous in the history of medicine in America.

St. Xavier's College (Jesuit), founded in 1828, and magnificently rebuilt in 1868, is a massive structure of native free-stone and brick, on Sycamore Street, with a frontage of 66 feet, and running on Seventh Street 166 feet.

German Catholic Institute.—This is on Vine Street, near Sixth, adjoining the Mechanics' Institute, and adds much to the architectural effect of that part of the city. Mozart Hall, already noticed, is in the building.

The *Wesleyan Female College* is on Wesley Avenue, between Court and Clarke Streets. The foundations were laid in 1867, and the building as now completed is a fine edifice, surrounded by ornamental grounds. The institution has been in operation since 1832.

Convent of Notre-Dame.—This is on Sixth Street, west of Sycamore. A day school for young ladies, and limited boarding accommodation for day pupils, supporting the Order.

St. Clair's Convent is the home of a French sisterhood, known as the Sisters of the Poor of St. Francis. It is at the corner of Lythe and Third Streets. The Sisters teach young ladies household industry, and some of the polite accomplishments.

The *Cathedral School* is a large free Roman Catholic school, built by Archbishop Purcell, in opposition to the public school system, on the corner of Mound and Chestnut Streets. An unsuccessful effort was made to dispose of this and other Catholic schools to the Board of Education.

Convent of St. Francis, on Vine Street, between Liberty and Greene Streets (German). Industry and charity are the objects of the order of this name.

The *Hughes High School* is on the south side of Fifth, facing Mound Street. It is in the collegiate Gothic style of architecture, and is admirably suited for the purpose for which it was built.

The *Woodward High School* is on Franklin Street, between Sycamore and Broadway, and is, like the Hughes, a step between the intermediate schools and the college. The students are admitted by competitive examination, from the graduates of the public schools, which in this city are numerous and well conducted. Both of these schools are named after the gentlemen who founded them.

The *Lane Theological Seminary*, located at Walnut Hills, is one of the most noted in the country, and the names of many distinguished divines are identified with it.

The Roman Catholics have a large theological seminary and a flourishing academy on the western range of hills overlooking the Deer Creek Valley; but these are not in the corporate limits.

The *Ohio Mechanics' Institute*, corner of Sixth and Vine Streets, was founded in 1829, with the object of affording, at a nominal cost, instruction in practical branches of knowledge. The institute building is large, and contains Greenwood Hall and commodious rooms, one of which is occupied by the Theological and Religious Library. The Fire Department watch-tower and alarm-bell are upon this building.

Besides the educational institutions already mentioned, are the *Eclectic Medical College*, the *Physio-Medical College*, the *College of Dental Surgeons*, and the *Mount Auburn Female Seminary*.

The charitable institutions and associations of Cincinnati are numerous, and are conducted with a spirit of liberality and energy. Space can only be found here for a sketch of the most prominent.

The *Cincinnati Hospital*, completed in 1869, occupies the block north of Twelfth Street, between Plum Street and Central Avenue. It is said to be the largest, most complete, and handsomest institution of the kind, in the country. It consists of a number of detached buildings which are so united by corridors as to form one complete and harmonious whole. They are arranged so as to form a hollow square, in the centre of which is a fountain, surrounded by shade-trees and ornamental shrubbery. The central building, through which is the main entrance, is surmounted by a dome and spire 110 feet high. The building is of brick, with free-stone trimmings; the roof (Mansard) is covered with variegated slate. The grounds are 448 by 340 feet. The cost was nearly \$1,000,000. Every stranger should visit this institution.

St. Luke's Hospital is an Episcopal institution, located at the corner of Franklin Street and Broadway. It was incorporated in 1866. Patients are admitted without regard to creed, and may be visited by clergymen of their own faith. It is not entirely a charitable institution, as pay patients are received.

The *Jewish Hospital*, corner of Baum and Third Streets, provides for the needy sick of the Jewish faith, thereby entirely relieving the city of that expense. It is supported by voluntary contributions.

St. Mary's Hospital, corner of Betts and Linn Streets, is a Roman Catholic institution, under the management of a German sisterhood. It is partly supported by charity and partly by pay from such patients as can afford to give.

The *Hospital of the Good Samaritan* is at the corner of Lock and Sixth Streets. This was the U. S. Marine Hospital, but was abandoned by the Government and purchased by two wealthy citizens, who gave it to the Sisters of Charity. It is a magnificent building, very large and commodious. Patients are charged for rooms and attendance, although some are admitted on charity.

Sisters of the Good Shepherd.—This order has a Magdalen institution, corner of Bank and Baymiller Streets, where abandoned women are reclaimed, and are taught to support themselves by honest labor. A convent and the Magdalen occupy almost an entire block.

The *Chapel of the Sisters of Mercy* is an order engaged in finding employment for women. It is doing a grand missionary work among the intemperate. The house is on Fourth Street, between Central Avenue and John Street.

The *City Infirmary* has its office on Plum Street, between Seventh and Eighth, but its building, which is large and handsome, is located upon a fine farm, 8½ miles north of the city, upon the Carthage road.

The *Longview Asylum for the Insane* is a State institution, located six miles north of the city, in the neighborhood of Carthage. The building, which is of brick, and almost fire-proof, is 612 feet long, is lighted by gas made on the premises, and is heated by hot air and steam. It has large and beautiful pleasure-grounds for the use of the patients.

The *Cincinnati Orphan Asylum* was chartered in 1833, and, three years later, a building was erected on Elm Street. In 1861 a new building was put up on Mount Auburn, and is now occupied by the Association. The institution is admirably managed.

The *German Protestant Orphan Asylum* is upon Highland Avenue, Mount Auburn.

The *Children's Home* is at 19 and 21 Park Street; the farm is on College Hill,

8 miles from the city, and a branch is established at No. 1, East Sixth Street. The object of this institution is to provide for orphans, and for children whose parents cannot take care of them.

The *Union Bethel*, though originally (in 1839) merely a Sunday-school, has become one of the most prominent of the Cincinnati benevolent institutions. It now embraces the following departments: River Mission, Visitation of Families, Bethel Church, Bethel School, Relief Sewing-school, Free Reading-room, Cheap Dining-hall, and the News-boys' Home. The foundations of a fine building, laid in 1868, have been completed. There is to be one entrance from Front, and two from Yeatman Street. The building is to contain the following departments: A grand hall capable of accommodating from 2,500 to 3,000 (this is finished and in use); a cheap temperance restaurant; a free reading-room; dormitories; a people's bath; a gymnasium; rooms for Relief Department and Ladies' Bethel Aid Society, and a Newsboys' Home. This Association is non-denominational.

The *Widows' Home* is an institution whose name sufficiently indicates its character. It was originated in 1848, and chartered in 1851. Candidates for admission must be of good character, and, except in certain cases, over 60 years old. The house is opposite the German Orphan Asylum, on Highland Avenue, with very pleasant surroundings.

The *Home for the Friendless*, on Court Street, between Central Avenue and John Street, is a handsome edifice of brick with stone trimmings, 54 feet front and 4 stories in height. The object of this institution is to reclaim fallen women and to protect virtuous ones who have no friends nor means of livelihood.

The *Women's Christian Association*, though strictly a religious society, is practically a great charity, and was organized in June, 1868. Its principal beneficiary department is that which provides a boarding-house for homeless women. This house is at 27 Longworth Street, where young women can find neatly-furnished rooms and a comfortable home at prices within the means of the most poorly paid.

The *Young Men's Christian Associa-*

tion has a number of departments, both religious and secular. It is at 200 and 202 Vine Street. The building includes a free reading-room, a music-room, furnished with a piano, cabinet-organ, etc.; and a conversation-room, where all sorts of innocent games are encouraged. During the cold season the Association provides a place where indigent persons can be fed and lodged free of expense, called the "Strangers' Home." At the corner of John and Columbia Streets a coffee and reading room was established in 1866. Here the prices are very low, and the articles furnished good. A project is on foot to erect a more suitable building, which it is expected will equal in size and elegance that of the Association in Philadelphia.

The *Public Library*, formerly in the Mechanics' Institute, occupies the imposing structure on Vine Street, above Sixth, originally intended for an opera-house, which plan fell through from want of funds, and the property being involved in law was ordered to be sold at public auction, the Board of Education becoming the purchasers. It is a magnificent building, and, when completed for a library, will be entirely fire-proof. There are 23,000 well-selected volumes now in use, and this number is steadily increasing at the rate of over a thousand per year.

The *Public Landing*, or Levee, as it is sometimes called, lies between Main Street and Broadway, or two long squares in length, well paved and gradually sloping down to the water's edge. Its depth is 700 feet. There is also wharfage all the way from the foot of Lawrence Street, in the east, to Race Street, in the west, intercepted only by the suspension-bridge pier, thus affording five squares of steamboat landing with accommodations for as many as forty steamers at a time. The levee at all times during high water presents a very animated appearance, and the city is so built as to permit of its extension at any time.

The *Davidson Fountain*.—This magnificent fountain, the handsomest in America, presented to the city by the late Tyler Davidson, is now in operation, in Fifth Street, market space having been

ceded by the city for the purpose. The fountain is of bronze, cast in Munich. It rests upon a granite base surrounded by a handsome esplanade, the whole work occupying the entire length of a square, and the space between the curbs on the upper and lower sides of the street. This beautiful improvement has already induced the building of several handsome blocks of stone.

The *Masonic Temple*, corner of Third and Walnut Streets, is in the Byzantine style of architecture, and is 195 feet by 100. It is one of the most convenient and elegant Masonic buildings in the United States.

The *Merchants' Exchange and Chamber of Commerce* is on Fourth Street between Main and Walnut, adjoining the First Presbyterian Church, which is noted for having the highest steeple in the city.

The Exchange is a fine large hall on a level with the street, but stands back in the heart of the square, with stores and offices in front, thus securing immunity from the noise and din of the roaring thoroughfare. The hall affords standing room for nearly 25,000 people, and is a point of attraction every business day from eleven o'clock A. M. till one o'clock P. M.

The *Board of Trade Rooms* are in Pike's elegant building on Fourth Street, between Vine and Walnut Streets. The organization is separate and distinct from the Chamber of Commerce, but occupies about the same relation to the commerce of the city.

Art Galleries.—As yet, a public fine-art gallery has no place among the attractions of Cincinnati, but one will be a feature of the McMicken University. The private collections of paintings of rare worth are numerous, but those of Henry Probasco, on Clifton, and Joseph Longworth, on Walnut Hills, may be mentioned as large and valuable. Visitors are always politely received.

In sculpture there are many works of Hiram Powers, who was born and educated in Cincinnati, and still calls it his home, but they are all owned by private individuals, except a bust of Washington, to be seen in the Mercantile Library rooms, on Walnut Street above Fourth.

It is a little remarkable that a city from

which graduated such artists as Powers, T. D. Jones, and Clevinger, among sculptors, and Sontag, Beard, T. B. Read, Powell, Johnston, and Frankenstein, among painters, has never had any public repository of art.

OTHER BUILDINGS AND PLACES OF INTEREST.

The *Cincinnati Observatory* on Mount Adams, near the eastern boundary of the city, is 500 feet above low water, this commanding situation giving great advantages for making astronomical observations. The equatorial telescope with which it is furnished has a focal length of $17\frac{1}{2}$ feet, and an object-glass 12 inches in diameter, with a magnifying power of 1,400 times. The place is now in a state of dilapidation, and has been practically abandoned as an observatory, from want of support.

The *Water-Works*, on East Front Street, near the Little Miami Depot, are of great magnitude, and, being adapted to the varying stages of water in the Ohio, are an object of curiosity to the stranger.

There are four pumping-engines, the average capacity of which is a little less than 30,000,000 gallons per day. The average summer consumption by the city is 24,000,000 gallons per day, and during the rest of the year a little less than 14,000,000 gallons per day. The question of water-supply has become serious, and two more engines, with a pumping capacity of 20,000,000 gallons per day, are called for, in order to be provided in case of accident to the engines now in use, or of extraordinary emergency, as of fire.

The reservoir holds only 5,000,000 gallons, so that the water is supplied almost direct from the Ohio River without the necessary process of "settling," but, when the new reservoir in Eden Park is completed, there will be an abundant reserve of water for all purposes and emergencies.

Longworth's Wine-Cellar, at the east end of Sixth Street, is one of the attractions of the city, the business of wine-growing being comparatively new in this country. This cellar, or, rather, collection of cellars, is admirably suited for

the purpose, and contains immense quantities of wine.

Pork-packing Houses are numerous, and a visit to one of them is sure to repay the tourist. The details in regard to killing, cutting up, and packing hogs, would be out of place here; but we would advise the gentlemen, at least, who may come to Cincinnati, to visit some one of the largest of these houses and see the neatness and dexterity with which these animals can be disposed of at the rate of 200,000 per day.

"OVER THE RHINE."

More than a third of the residents of Cincinnati are Germans, or people of German parentage. They occupy the large section of the city north of the Miami Canal, which enters northwest at the Brighton House, and comes south as far as Eleventh Street, then, turning due east from Plum, runs away beyond Broadway, emptying into the Ohio River near the Miami Railroad depot in the extreme eastern part of the city.

The visitor finds himself in an entirely different country "over the Rhine," for he hears no language but German, and all the sign-boards and even the placards on the walls are in German. The business, the dwellings, beer-gardens, theatres, halls, and churches, all remind the European tourist of Germany, and this as well as a love for the familiar home-name made the German-Americans call the canal after the noble river from whose vine-clad hills their fathers came.

The halls are a noticeable feature, *Arbeiter* and *Turner Halls* being the largest. These are both at the upper end of Walnut Street, and are immense buildings, each containing, besides very large assembly-rooms, a number of small halls for the accommodation of societies.

There are several other halls, used mainly by musical societies, of which there are four, embracing over a thousand instrumental and vocal performers. This part of the city is remarkable for its cleanly appearance and the density of its population, tenement-houses being a prominent characteristic.

Edibles of German character and preparation, good music, and a good glass of beer or Rhine wine, can always be had in

this quarter. The beer-cellars are a wonderful feature to those unacquainted with the underground accommodation necessary for brewing and subsequent storage, and they can be found almost anywhere "over the Rhine."

MANUFACTURES.

Cincinnati is steadily progressing in its march to the front rank with the great manufacturing cities of the world, and is now estimated as the third in importance in the United States. Among its chief manufactures, and those that add immensely to its importance and revenue, are furniture, steamboats for river and sea-coast trade; iron-clads for naval warfare, its marine ways and dry-docks affording it special advantages; machinery of every description, from large first-class steam-engines down to simple portable corn and sugar mills; church bells and organs; pianos, gas, water, and steam pipes; surgical instruments and cutlery; stores and hollow-ware; clothing, silk and cotton, trunks and valises, carriages and wagons, chemicals and medicines, paints, oils, and varnish, glue, starch, soap, candles, and glycerine; lard and lard-oil, sashes, window-blinds, doors, and portable houses, ready for shipment; cooperage, hair-work in every shape; whiskey, wine, and beer, the excellence of which is unsurpassed. Its high-wines are shipped in great quantities to Europe, Asia, and Africa, and it is conceded by intelligent observers that no other city in the Union sends from its railroad depots and wharves a greater variety of its own manufactures in proportion to its general commerce.

PROMENADES AND DRIVES.

Fourth Street, from Pike Street on the east, to Park Street on the west, is the fashionable promenade. It embraces some of the most elegant private residences and beautiful stores in the city; but there are besides, Eighth Street from Vine westward; Seventh and Sixth Street, from Mound westward. The portion of Freeman Street lying along the Lincoln Park is a favorite promenade.

Pike Street from Third to Fifth, along the old Longworth homestead, is known as the "Lovers' Walk."

The drives most esteemed are "the Avenue," from the Brighton House, at the junction of Hamilton Road and Freeman Street, to Spring Grove Cemetery, and thence around Clifton and Avondale, returning to the city by way of Mount Auburn on the extreme east from the starting-point. These drives afford the best means for obtaining an understanding of the location and situation of Cincinnati, besides exhibiting the unquestionable good taste and opulence of its citizens.

From the Clifton Heights, Spring-Grove Cemetery is seen lying in beautiful repose, and the lovely landscape, undulating and dotted with elegant residences and pretty villas, stretches away far as the eye can reach.

From Mount Auburn the grandeur of the Ohio valleys may be appreciated. The view from that elevation takes in the sinuosities of the Ohio and the serrated hills among which it winds for several miles, while the great, noisy city is seen lying in smoky obscurity, almost at the tourist's feet. This view is only equalled in beauty and extent by that from the more eastern elevation of Eden Park.

CEMETERIES.

Spring Grove, one of the most beautiful cemeteries in the West, lies three miles northwest of Cincinnati in the valley of the Mah-ket-e-wa (Mill Creek), and is approached by a splendid avenue, one hundred feet wide; also by the Cincinnati, Hamilton & Dayton Railway, which has a station immediately adjoining the grounds.

The site was selected in 1844, and the charter granted in 1845. The place was named Spring Grove because abounding with springs and groves of trees. It embraces about 450 acres, the greater portion of which once lay flat and marshy. The western border slopes upward into a noble spur, along which a fine carriage-way has been constructed. The plan is designed to preserve and impart a natural appearance, and to conceal the hand of art. Fine avenues wind around miniature lakes, shaded by many varieties of indigenous trees and shrubs, and lead the visitor to an ever-changing landscape, an effect produced by rare perfection of skill and taste in landscape-gardening.

The monuments are numerous, and display taste and judgment. Many of them are half concealed by masses of luxuriant foliage.

The citizens erected a fine bronze statue, in 1864, to the memory of the Ohio Volunteers in the war for the Union, which is worthy of note. It represents a United States soldier on guard, standing on a granite pedestal at the junction of Lake Shore and Central Avenues. The soldiers' graves lie in two circular lots a little distance from the monument, and embrace an area of 22,532 square feet.

St. Bernard Cemetery, in sight of Spring Grove, is an old burying-place of the Roman Catholic Church. It is little else than an accumulation of grave-stones.

The *Wesleyan Cemetery* is a Methodist ground, and can be taken on the way to Spring Grove, situated as it is near Cummins-ville.

The *Jewish Cemetery* is in the eastern suburbs of the city, but it is small, and not remarkable for landscape beauty or monumental attractiveness.

ROUTE VI.

NEW YORK TO CINCINNATI.

Via Pan-handle Route. (Time, 28 hrs.—Fare, \$20.)

This is identical with Route IV., as far as Columbus, Ohio. (See page 25.)

At Columbus the track of the *Pittsburg, Cincinnati & St. Louis Railway* is left; the through-cars for Cincinnati taking the track of the *Little Miami Railway*.

STATIONS.—Columbus, 638 miles from New York; Alton, 644; West Jefferson, 652; London (connects with London Branch of Cincinnati, Sandusky & Cleveland Railway), 663; South Charleston, 674; Cedarville, 683; Xenia (connects with Dayton, Xenia & Western Railway, and with Branch to Springfield), 693; Corwin, 707; Fort Ancient, 717; Morrow (connects with Cincinnati & Muskingum Valley Railway), 722; South Lebanon, 726; Foster's, 731; Loveland (connects with Marietta & Cincinnati Railway), 735; Milford, 744; Cincinnati, 758.

Columbus, O. (638 miles). (See page 26.)

London, O. (663 miles), is a flourishing village, and the capital of Madison County. It contains a fine Union school-house. The *London Branch of the Cincinnati, Sandusky & Cleveland Railway* connects here.

South Charleston, O. (674 miles), is a beautiful little village.

Xenia, O. (693 miles), is, like a large proportion of the Ohio towns, regularly and handsomely built, the streets being shaded with large forest-trees. It is the capital of Greene County, and contains a handsome court-house. It is upon the *Little Miami River*, and has a good water-power, which is utilized by a number of manufactures. The surrounding country is undulating, fertile, and highly cultivated; limestone is abundant in the vicinity, and all these elements of prosperity are rendered of tenfold value by the railroad facilities possessed by the place. The *Dayton & Xenia* and *Dayton & Western Railways* connect at this point. A *Branch to Yellow Springs and Springfield* diverges here.

Yellow Springs, O. (10 miles from Xenia), is a favorite resort for residents of Cincinnati, and is the site of *Antioch College*. East of the college is a picturesque ravine, presenting varied attractions to the tourist. The *Yellow Spring* is about one-half mile northeast of the college. It flows directly from the limestone rock, and discharges over 600 gallons a minute. At *Clifton*, near by, the scenery is charming and varied, its interest being enhanced by the *Little Miami River*, which here in a distance of a few miles falls 200 feet. The water has excavated in the solid limestone a narrow channel or cañon of great depth. The hotels are excellent, and no pleasant-er summer resort can be desired. This place is only 9 miles from *Springfield*, at the junction of the Branch with the *Cincinnati, Sandusky & Cleveland Railway*, and the *Atlantic & Great Western Division of the Erie Railway*.

Morrow, O. (722 miles), is a thriving village at the junction with the *Cincinnati & Muskingum Valley*, formerly known as the *Cincinnati & Zanesville Railway*.

Loveland, O. (735 miles), is the junction of the *Marietta & Cincinnati Railway*.

Milford, O. (744 miles), is a flourishing village on the opposite bank of the *Little Miami River* to the railroad. It is connected with the railway station by a bridge.

Cincinnati, O. (758 miles), has already been described. (See page 31.) Connections are made here with all divergent railways, and with the *Cincinnati & Louisville U. S. mail line* steamers.

ROUTE VII.

NEW YORK TO ST. LOUIS.

Via Pennsylvania Central and connecting Railways, known as the Pan-handle Route. (Time, 42 hrs.—Fare, \$27.)

As far as *Bradford Junction*, Ohio, on the *Columbus, Chicago & Indiana Central Railway*, this route is identical with Route IV. (See page 25.) At *Bradford Junction* the road branches; one division running to Chicago (Route IV.); the other, which we now follow, running to Indianapolis, and there connecting with the *St. Louis, Vandalia, Terre Haute & Indianapolis Railway* for St. Louis.

STATIONS ON COLUMBUS, CHICAGO & INDIANA CENTRAL RAILWAY.—Bradford Junction, 721 miles from New York; Gettysburg, 725; Greenville (connects with Dayton & Union Railway), 722; Weaver's, 738; New Madison, 743; Urley's, 747; New Paris, 752; Richmond (connects with Dayton & Western Railway, and Cincinnati, Richmond & Chicago Railway, composed of Cincinnati, Hamilton & Dayton Railway from Cincinnati to Richmond, and of Columbus, Chicago & Indiana Central Railway from Richmond to Chicago), 758; Centreville, 764; Germantown, 771; Cambridge City (connects with railways diverging), 773; Dublin, 775; Lewisville, 782; Ogden, 788; Raysville, 791; Knightstown, 792; Charlottesville, 797; Greenfield, 805; Philadelphia, 809; Cumberland, 815; Indianapolis (connects with all railways centring there), 826.

STATIONS ON THE ST. LOUIS, VANDALIA, TERRE HAUTE & INDIANAPOLIS RAILWAY.—Indianapolis, 826; Fairview, 829; Bridgeport, 835; Oak-plain, 839; Plainfield, 840; Cartersburg, 843; Bellevue, 845; Clayton, 846; Amo, 851; Coates-

ville, 854; Fillmore, 859; Greencastle, 865; Junction (connects with Louisville, New Albany & Chicago Railway), 866; Hamricks, 870; Reelsville, 873; Eagles, 876; Harmony, 879; Brazil, 883; Newburg, 885; Staunton, 887; Cleveland, 889; Seelyville, 891; Terre Haute (connects with Evansville & Crawfordsville Railway, for Vincennes, Evansville, and Henderson), 899; Woodville, 909; Griffiths, 912; Marshall, 916; Auburn, 922; Martinsville, 927; Casey, 934; Greenup, 943; Pleasantville, 948; Spiller's, 956; Teutopolis, 962; Effingham (connects with Chicago Division of Illinois Central Railway, for Chicago and Cairo), 966; Fenkhouser, 970; Altamont, 978; St. Elmo, 984; Brownstown, 990; Bluff City, 993; Vandalia (connects with main line of Illinois Central Railway, for Dubuque and Dunleith), 997; Hagerstown, 1,001; Mulberry Grove, 1,007; Henderson, 1,011; Greenville, 1,015; Stubblefield, 1,019; Pocahontas, 1,025; Oakdale, 1,029; Highland, 1,034; St. Jacob's, 1,039; Troy, 1,046; Confidence, 1,049; Collinsville, 1,053; Hunter's, 1,057; East St. Louis, 1,064; St. Louis, 1,065.

Bradford Junction, O. (721 miles). (See page 28.)

Greenville, O. (722 miles), is the capital of Darke County, and one of the oldest towns in the State. It is noted as being the site of Fort Greenville, built by General Wayne in 1793, and as being the spot where he concluded his treaty with the Indians. The *Dayton & Union Railway* connects here.

Richmond, Ind. (758 miles), is one of the most beautiful and prosperous towns in Indiana. It is situated on the east fork of Whitewater River, in Wayne County, and in an agricultural region of great fertility. It has an abundant water-power, and is the seat of numerous mills and manufactories. In the manufacture of agricultural implements and farm machinery Richmond has especial prominence. It is the centre of a considerable trade with the surrounding country, has many pleasing features, is well built, and contains some handsome churches and residences. The population of Richmond and Wayne County is largely composed of Quakers. They are noted for their enterprise, thrift, and en-

lightenment, and Wayne County ranks among the first in the State for prosperity and the general diffusion of education. Richmond is the seat of Earlham College, a Quaker institution; and is also the place of the *Indiana Yearly Meeting* of the Orthodox church of the Quaker denomination—embracing the territory of Eastern and Northern Indiana, part of Western Ohio, Kansas, and part of Illinois. The *Dayton & Western* and *Cincinnati, Richmond & Chicago* (composed of the *Cincinnati, Hamilton & Dayton*, and one of the divisions of the *Columbus, Chicago & Indiana Central*) *Railways* connect here. Population in 1870, 9,443.

Centreville, Ind. (764 miles), is the county-seat of Wayne County. It is pleasantly located, and has a number of handsome residences. Its trade is not large, and is confined to its immediate vicinity, owing to the greater importance of the neighboring town of Richmond.

Cambridge City, Ind. (773 miles), is also in Wayne County, and is a growing town on the *Whitewater River*. It has some importance as a railway centre. Its manufacturing interests are considerable, and increasing. The following railways connect here: *Whitewater Valley*; *Fort Wayne, Muncie & Cincinnati*; *Cincinnati & Indianapolis Junction*, and the *Columbus (Ind.) & Cambridge City Branch of Jeffersonville, Madison & Indianapolis Railway*.

Knightstown, Ind. (792 miles), a thriving town, situated on *Blue River*, has considerable manufacturing and business interests compared with its population, and is surrounded by a fertile region. One and a half mile from this place are mineral springs that once had considerable local celebrity, and were quite a resort for invalids. The building located at their site was purchased a few years ago by the State, and has since been greatly enlarged and converted into a *Soldiers' Home* for the disabled soldiers of Indiana, and the indigent widows and orphans of the soldiers from Indiana, who fell during the war.

Greenfield, Ind. (805 miles), the county-seat of Hancock County, is situated in a productive region, and is a thriving place.

Indianapolis, Ind. (826 miles), is the capital and the largest city of Indiana. It is on the west fork of *White River*, and is nearly in the geographical centre of the State. It is situated on an extensive and very fertile plain, and is a striking illustration of the rapid progress in the western part of this country; for in 1820, when the capital was located here, the whole country within a radius of forty miles was an unbroken forest. In the centre of the original plot of the city is a circular park, and from the exterior corners of the four squares enclosing this park radiate four avenues that intersect (with the exception of a few minor avenues) the other streets diagonally; while, with these exceptions, the streets cross each other at right angles. Meanwhile the city has extended greatly on all sides of the original plot. The principal business-houses were long confined to Washington Street; now South Meridian Street has most of the large wholesale and jobbing establishments, and the retail business is rapidly extending up Pennsylvania Street, and up and down Illinois Street, on either side of Washington. The latter is a handsome street, 120 feet in width. The great width of all the streets contributes much to the attractiveness and health of the city.

Indianapolis is one of the greatest railroad centres in the West, and it has been termed "The Railroad City." No fewer than twelve completed railways converge here, and two others are projected, one of which is under contract.

The health of the city is shown by the fact that the death-rate the past year was considerably less than one per cent. of the population.

Indianapolis is also noted for its superior system of public graded schools, sustained by a large annual revenue from taxation, and affording, through the various grades, all the branches of a complete education.

Its manufacturing interests are various and extensive, and are increasing rapidly. Being but 40 miles from the eastern outcrop of the great coal-fields of Western Indiana, which contain about 8,000 square miles, and which are penetrated by five railways diverging from Indianapolis, the

city has an inexhaustible supply of cheap coal, of a superior quality, offering great inducements to manufacturing of all descriptions, and especially (owing to peculiar virtues in certain varieties of the coal) to the manufacture of iron and iron products.

CHURCHES.

There are about fifty churches in the city, besides a number of missions, and congregations that have no houses of worship of their own. Of the churches the principal in respect of architectural beauty are the following:

EPISCOPAL.—*Christ Church*, northeast corner of Meridian and Circle Streets; *St. Paul's*, southeast corner of Illinois and New York Streets.

METHODIST.—*Meridian Street M. E. Church*, southwest corner of Meridian and New York Streets; *Roberts Park M. E. Church*, northeast corner of Vermont and Delaware Streets; *Grace Church*, northeast corner of Market and East Streets.

PRESBYTERIAN.—*First Church*, southwest corner of Pennsylvania and New York Streets; *Second Church*, northwest corner of Pennsylvania and Vermont Streets.

BAPTIST.—*First Church*, northeast corner of Pennsylvania and New York Streets.

ROMAN CATHOLIC.—*Cathedral*, on South Tennessee Street.

CONGREGATIONAL.—*Plymouth Church*, northwest corner of Meridian and Circle Streets.

All these are in the Gothic style, and are elegant edifices. Other prominent churches are: *Third Presbyterian*, northeast corner of Illinois and Ohio Streets; *Fourth Presbyterian* southwest corner of Delaware and Market Streets; *Jewish Synagogue*, East Market Street; *Christian Chapel*, corner of Ohio and Delaware Streets.

STATE INSTITUTIONS.

The *State House* is on Washington Street, at its intersection with Tennessee Street. It is a venerable-looking edifice, built in 1835, and is of the Doric order of architecture, save its incongruous dome. At the time of its erection, it was regarded as an elegant and imposing

structure; but its exterior has become shattered and defaced by time. It contains the Governor's rooms, and those of the State geologist; the State archives and State Library, and the Assembly Chambers.

The *State Lunatic Asylum* was founded in 1848, and the buildings have twice been enlarged. Their total cost has been \$350,000. The principal building is a noble structure, in the *renaissance* style, and has accommodations for 525 patients. It is one and a half mile west of the city limits, is lighted with gas, and has a system of water-works of its own. Its grounds consist of 160 acres, a portion of which is beautifully adorned.

The *State Institute for the Blind* was founded in 1847, and cost \$300,000. It is on North Street, between Illinois and Meridian, and contains eight acres. The main building has a centre and two wings, presenting a front of 150 feet, and is five stories in height. Each of the three sections is surmounted by a Corinthian cupola, the centre having a portico of the Ionic order. The material of the building is sandstone, and stucco and brick.

The *State Institute for the Deaf and Dumb* was likewise founded in 1848. The present buildings have been erected at a cost of \$220,000. Connected with the institution are 105 acres of ground, worth as many thousands of dollars. The grounds more immediately surrounding the buildings are beautifully laid out in walks and drives, and are elaborately adorned with shrubbery, flowering plants, forest and shade trees, etc. It is perhaps the most beautiful spot, in the summer-time, in the city. The Institute is just east of the city limits.

The *Reformatory for Women and Girls*, now in course of erection, just east of the city, will be a large and commodious structure, answering the purpose of a reformatory and prison for female offenders.

OTHER PROMINENT BUILDINGS, ETC.

The *United States Arsenal*, one mile north by east of the city limits, is a handsome building. It has connected with it 60 acres of ground, and has picturesque surroundings.

The *Northwestern Christian University*,

in the northeastern suburb of the city, is a flourishing institution, built in 1852. It is open to both sexes. The edifice is handsome and commodious, and is beautifully located amid forest-trees.

Other prominent buildings are: *Odd-Fellows' Hall*, of the Byzantine order, corner of Washington and Pennsylvania Streets; *Academy of Music*, of the *renaissance* order, corner of Illinois and Ohio Streets; *Masonic Hall*, of the Doric order, corner of Washington and Tennessee Streets; *United States Post-Office* building, corner of Pennsylvania and Market Streets, containing the Post-Office, United States Court-Rooms, and offices of various Federal officials; *Journal* and *Sentinel* newspaper buildings; *Baker House*, *Mozart Hall*, etc. There are also many elegant residences and business blocks, and several pretty parks.

The *Union Depot*, with a length of 420 feet, fronts on Louisiana Street, between Illinois and Meridian, and is one of the most spacious and convenient structures of the kind in the country—all of the twelve lines of railway that centre here receiving and discharging their passengers at this one depot.

The following railways centre here: *Indianapolis & Cincinnati*, and *Lafayette & Indianapolis*, now consolidated under the name of *Indianapolis, Cincinnati & Lafayette*; *Indianapolis, Bloomington & Western*; *St. Louis, Alton, Terre Haute & Indianapolis*; *St. Louis, Vandalia, Terre Haute & Indianapolis*; *Indianapolis & Vincennes*; *Jeffersonville & Indianapolis*, and *Madison & Indianapolis*, now consolidated under the title of *Jeffersonville, Madison & Indianapolis*; *Cincinnati Junction*; *Cleveland, Columbus, Cincinnati & Indianapolis*; *Indianapolis, Peru & Chicago*; and *Columbus, Chicago & Indiana Central*. Population in 1860, 18,611; in 1870, 40,936.

Plainfield, Ind. (840 miles), is a growing village, surrounded by a flourishing agricultural region. It is the seat of the *Western Yearly Meeting* of the Orthodox Quakers of Western and Southern Indiana, and part of Western Illinois. The *Indiana House of Refuge* (for boys) is located here.

Greencastle, Ind. (865 miles), is the county-seat of Putnam County, and

is noted for the great educational advantages it affords. In addition to the usual public and high schools, it contains a young ladies' academy, and a collegiate institution known as the *Indiana Asbury University*. It is pleasantly situated on high table-land, and is the commercial centre of a rich farming and extensive stock-raising region. Various manufactories have also sprung up here within the past few years. The *Louisville, New Albany & Chicago Railway* connects here; and it is also on the line of the *St. Louis, Alton, Terre Haute & Indianapolis Railway*. Population, 3,232.

Brazil, Ind. (883 miles), is a village that has recently exhibited a remarkable growth by reason of the development and utilization of the coal-fields and iron region of Western Indiana, of which it is the central and most important point. By virtue of its favorable location, manufactories are rapidly springing up, numerous collieries and blast-furnaces have been established in the vicinity, and the population is rapidly increasing. Population in 1870, 2,773.

Terre Haute, Ind. (899 miles), the capital of Vigo County, is on the western border of Harrison Prairie, one of the most fertile and attractive sections of the State. It is beautifully situated on the east bank of the *Wabash*, at an elevation of about 60 feet above the level of the river. The streets are wide, cross each other at right angles, and are abundantly provided with shade-trees. Some portions of the place present quite a rural aspect, gardens and ornamental grounds being attached to many of the residences. It contains a fine courthouse, a town-hall, several fine public halls, and a number of churches, some of which are very handsome. The river is spanned at this point by a fine bridge. The trade of Terre Haute is large, and its facilities for the shipment of grain, etc., unusually good. The *Wabash & Erie Canal* passes through the town, and the following railways connect here: the *Evansville & Crawfordsville*—now completed, except a short section between Rockville and Crawfordsville, and being extended, also, from Rockville to Chicago, of which extension all but the section between Danville, Ill., and Rockville is completed;

the *St. Louis, Alton, Terre Haute & Indianapolis*; and the *St. Louis, Vandalia, Terre Haute & Indianapolis*, over which we are now travelling. The portion of the latter route between Terre Haute and St. Louis was opened in July, 1870. By this road a distance of 25 miles is saved, and two lines of communication between Terre Haute and St. Louis are secured. The city has also a considerable trade by the river, which is navigable a part of the year as far as and above this point.

Terre Haute has excellent educational advantages. *St. Mary's*, a Catholic Seminary of considerable note, for the education of young ladies, is near this city.

The *State Normal School*, an institution to qualify students as teachers, is located here. Its cost is \$230,000; and its location at Terre Haute was secured by a donation of \$50,000 and the gift of the grounds.

By reason of its proximity to the coal-fields, the manufacturing interests of the place are rapidly extending. Population in 1870, 17,105.

Marshall, Ill. (916 miles), is the capital of Clarke County. It is situated in a rich agricultural region, and is a growing place.

Greenup, Ill. (943 miles), is located upon Embarras Prairie, and until about twelve years ago was the capital of Cumberland County. At that date the capital was removed to *Prairie City*, which had a depressing effect on the growth of Greenup. Its population hardly exceeds 800; but its prospects, by reason of its recently-acquired railway facilities, are more promising than before. The surrounding country is well adapted to farming purposes.

Effingham, Ill. (966 miles), is the capital of Effingham County, and the junction of the *Chicago Branch of the Illinois Central Railway*. It is situated near the *Little Wabash River*, on a slight eminence, is well drained, and nearly surrounded by a small belt of timber. It has a large trade, which is increasing rapidly, as are also its manufacturing interests. Bricks, especially, are made here in large quantities. Population, about 2,500.

Vandalia, Ill. (997 miles), the capital of Fayette County, was at one

time the capital of Illinois, and was then a very prosperous place. After the removal of the capital to Springfield, the population became very much reduced; but, with the railroad connections which it now enjoys, it is entering upon a new era of prosperity. It is situated on the *Kaskaskia River*, and is the junction with the main line of the *Illinois Central Railway*.

Greenville, Ill. (1,015 miles), is the capital of Bond County, and is a prosperous place, upon the east bank of *Shoal Creek*. It has the greatest elevation along the route between Terre Haute and St. Louis. On the north is some timbered land, and on the south a fine prairie. Its trade with the surrounding country is good, and its manufacturing advantages are excellent. Population, about 2,500.

Highland, Ill. (1,034 miles), is an enterprising and flourishing town. Its inhabitants are mainly Germans. It is a place of considerable business; and, for its population, its manufacturing industries are both various and extensive. It is pleasantly situated in a fertile and healthful region. Population, about 2,700.

East St. Louis, Ill. (1,064 miles), is the point where all routes reaching St. Louis from the east terminate, pending the building of the great bridge over the Mississippi, described under the head of *St. Louis*.

ST. LOUIS.

THE city of St. Louis is situated geographically almost in the centre of the great valley of the Mississippi or basin of the continent, on the west bank of the Mississippi River, and about half-way between St. Paul and New Orleans, and Pittsburg and Denver City, and by this route 1,065 miles from New York.

The topography of St. Louis County consists of a system of ridges branching from a water-shed between the Missouri, Meramec and Mississippi Rivers. This water-shed has a general altitude of 200 feet above the Mississippi River, and has numerous small ridges or arms branching from it and winding in serpentine courses, maintaining this general altitude along their summits, and terminating in bluffs

or low escarpments and declining grounds toward the Meramec, Missouri, and Mississippi Rivers.

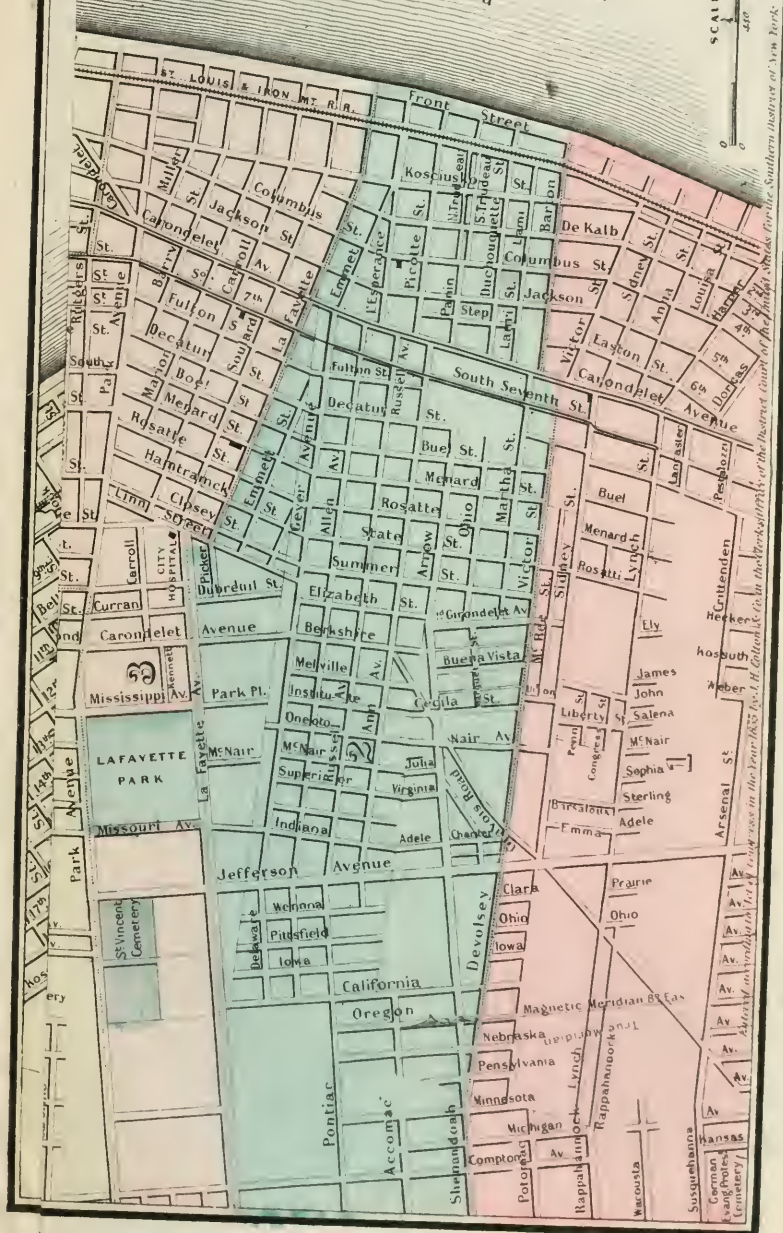
The city is built geographically on the ends or termination of this ridge system, extending some 12 miles up and down the river, the ground rising gently from the river back for one mile to Seventeenth Street, which follows in part the apex of the first ridge, and is 150 feet above the river. The ground then gently declines, and rises in a second ridge at Twenty-fifth Street, or Jefferson Avenue, and parts of Grand Avenue, and again slopes and rises in a ridge at Cote Brilliante, or Wilson's Hill, that is, four miles west of the river. This point is some 200 feet above the river, and overlooks the city.

While New York is limited to a barren, rocky island, Philadelphia to a low ridge between the Delaware and Schuylkill Rivers, Washington City to a flat, sterile, uninteresting region, Chicago to land from 5 to 15 feet above Lake Michigan, and swampy prairie beyond, Cincinnati to a small circuit surrounded by steep rocky hills, St. Louis has not only the most natural contour of surface for elevation of residence streets, but also deep clay over the limestone for brick, cellars and sewerage; foundation quarries of building-rock in all parts of the city—wells of pure water in the deep clays in many parts of the city, natural sewerage and dome-shaped hills for water-works, and essentially combines all the material resources for a great city.

St. Louis is well built, but its architecture is more substantial than showy. The wide, paved streets, the spacious levee and commodious warehouses; the mills, machine-shops, and manufactories; the fine hotels, churches, and public buildings; the universities, charitable institutions, public schools, and libraries; the growing parks, beautiful Fair grounds, and botanical gardens, constitute an array of excellences and attractions of which any city may justly be proud. The appearance of the city from the eastern bank of the Mississippi is imposing. At East St. Louis the eye sometimes commands a view of as many as 100 steamboats lying at the St. Louis levee.

In 1762, a grant was made by the Governor-General of Louisiana, then a

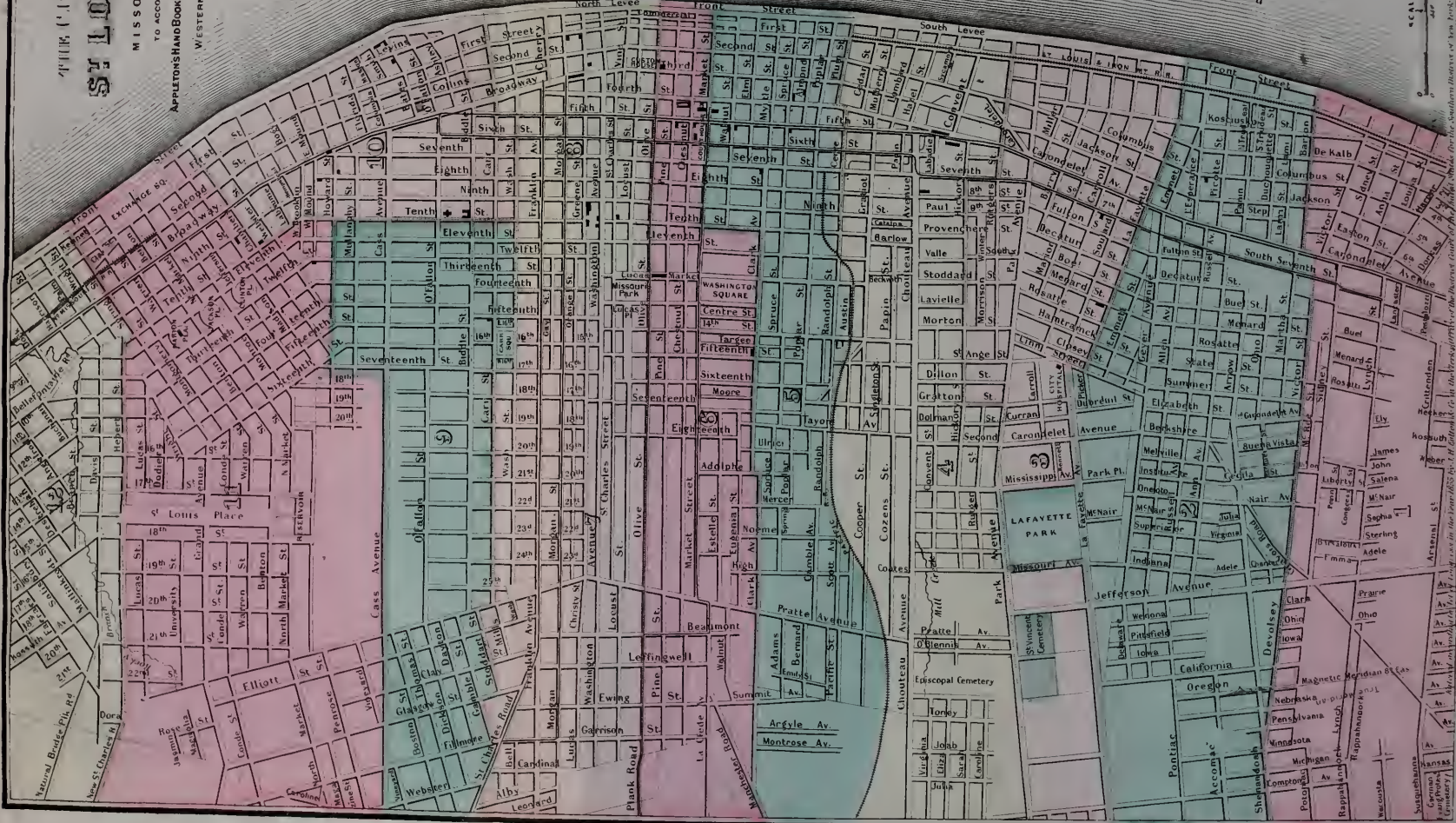
SCALE.
1/2 Mile
880 Yards



THE CITY OF
ST. LOUIS
MISSOURI.
TO ACCOMPANY
APPLETON'S HAND BOOK OF AMERICAN TRAVEL
WESTERN TOUR.

M I S S O U R I
S S I P P I
D U C A N S
I S L A N D
R

Scale
1 Mile
1000 Feet



French province, to Pierre Liqueur Laclede and his partners, composing the "Louisiana Fur Company," to establish trading-posts on the Mississippi; and on the 15th of February, 1764, the principal one was established where the city now stands, and was named St. Louis. In 1803 all Louisiana was ceded to the United States. In 1812 all of Louisiana north of the 33d degree of latitude was organized as Missouri Territory. In 1822 St. Louis was chartered as a city.

The first census was taken in 1764, and the population was then 120; in 1780 it was 687; in 1788, 1,197; in 1811, 1,400; in 1820, 4,928; in 1830, 5,852; in 1840, 16,469; in 1850, 74,439; in 1860, 160,773; and in 1870, 312,963.

In 1813, the first brick house was erected; in 1812, the first steamboat tied up at the levee; and in 1829, the "keel-boat," once the only means of reaching the city by the river, disappeared forever.

By a vote of the people in the summer of 1870, the neighboring city of Carondelet became incorporated with St. Louis. It was formerly a French village, and went by the name of *Ville Poche* (empty pocket). It is now the centre of a great iron interest, and has numerous furnaces and mills. The city of St. Louis has literally grown around and absorbed it. The description of the inhabitants of Carondelet, in 1803, as given by Monsignor Perrin du Lac—a French traveller—is very striking. In his account of his travels, published in Marseilles after his return to France, he says: "They differ from the neighboring savages in nothing but their *sour touts*." At this time according to the same traveller, St. Ferdinand, which is still a village, 10 or 12 miles from St. Louis, was the largest and most prosperous town in Upper Louisiana.

The "Philadelphia system" of numbering the houses has been adopted here, all streets running parallel to the river being numbered north and south from Market Street; while on all streets running west from the river the numbering commences at the wharf. One hundred numbers are allowed to each block, the odd ones being on the north and west sides of the streets, and the even ones on the south and east. To illustrate the convenience of

the system we will suppose a person wishes to find 513 Pine Street, which is a street running west from the levee; he will be compelled to ask no questions, but will at once understand that it is the seventh number from the corner of Fifth Street, on the north side of Pine. Front Street, which is 100 feet wide, extends along the levee, and is built up with massive stone warehouses, which present an imposing appearance from the river, upon which they front. This street, with Main and Second, both parallel to it, is the location of the principal wholesale houses. Fourth Street is the fashionable promenade, and contains the leading retail stores. Grand Avenue is 12 miles long, running parallel with the river, and forming a grand broad-way from the north to the south end of the city, and is destined in the future, with its fair-grounds, its great parks, cathedrals, churches, water-works, and private residences, to be the boulevard of the Western Continent, although at present it but gives the promise of what is to be. Washington Avenue, one of the widest and finest in the city, runs at right angles to those previously mentioned as descending to the river. It is at the foot of this avenue that the great railroad bridge, to be described hereafter, is located.

HOTELS, RESTAURANTS, AND CLUBS.

HOTELS.—The *Southern*, which is on the square bounded by Walnut, Fourth, Fifth, and Elm Streets, will attract every stranger in that quarter by the elegance of its exterior. It is of enormous size, being 270 feet long on Walnut Street, and 113 feet on Fourth and Fifth Streets. The foundations were laid in 1858, and the work completed in 1862. It is built of Athens stone, closely resembling marble, in the Anglo-Italian style, from designs by George J. Barnett, and is six stories high. The gentlemen's dining-room, ladies' ordinary and grand parlor, are magnificent apartments. The Southern Hotel is the finest in the Mississippi Valley.

The *Planter's* is a very large and fine hotel, and occupies the entire square on Fourth Street between Pine and Chestnut. It has been a favorite house for many years.

The *Barnum Hotel* is a large and well-

built brick house, on the corner of Walnut and Second Streets. It is near the river, and is well kept.

The *Laclede Hotel* occupies a good locality on the corner of Fifth and Chestnut Streets. It is a new building, is of easy access, and is a good house.

The *Everett House*, *Olive Street*, *St. Nicholas*, and *Broadway Hotels*, are all well known and reputable hotels.

RESTAURANTS. — *French's Restaurant* and ladies' dining-hall, on the northwest corner of Fifth and Pine Streets, or No. 201 North Fifth Street, is a fine three-story brick building, with large dining-hall, and is the most popular place of the kind in the city. Other first-class restaurants are:

Sinclair's & Beer's, No. 910 Olive Street.

Louis C. Garne, southwest corner of Ninth and Olive Streets.

Caffarella, No. 101 North Twelfth Street.

Lavielle, Warner & Co.'s restaurant, in connection with the *Southern Hotel*, No. 107 South Fourth Street.

Lamond Pezotte, No. 200 North Fifth Street.

Nicholas Cantine, No. 408 Washington Avenue.

Hotel-Garni Restaurant, northeast corner of Fourth and Elm Streets.

CLUBS. — *Germania Club*, on the southwest corner of Eighth and Gratiot Streets, has a fine three-story brick building, with first-class restaurant, billiard-rooms, and rooms for other games, also a fine ball-room.

There are other club-houses of less note.

CONVEYANCES.

The street-car system of St. Louis is very complete, and affords easy and expeditious communication with all parts of the city. The principal starting-points are: Washington Avenue and Fourth Street, three lines; Fourth and Morgan Streets, three lines; Franklin Avenue and Fourth Street, one line; Oliver and Fourth Streets, one line; Fourth and Market Streets, one line; Fifth and Olive, one line; Locust and Fourth Streets, one line.

HACKS. — The rates of fare for the con-

veyance of passengers are established by ordinance, a copy of which is posted in every hackney carriage.

FERRIES.

Ferry accommodations are ample and the boats are of easy access from any of the hotels.

BRIDGES.

As yet there are no bridges, but, as the great bridge over the Mississippi is now (1873) so near completion, we give the following description of it:

The investigations of years in regard to the undercurrent of the Mississippi have shown that no river in the world changes its sand-bed so rapidly and to such an extent; and more particularly the soundings that were made near St. Louis showed that at times, when the river overflows, its sand-layers may be carried away to the depth of 40 feet, and, under extraordinary circumstances, scoured down to the very rock itself. Thus was demonstrated the necessity of laying the basis of the piers upon the rock itself, which under one pier is 90 feet, under the other 120 feet under the ordinary high-water line. Inasmuch, on the other hand, as the law of Congress, made in the interest of navigation, prescribes that the height of the arches shall be 50 feet above the city directrix, or ordinary high-water line, of the river, it results that the entire height of the piers must reach 165 and 194 feet respectively.

The system by which the base was laid upon the rock was that of sinking. By means of colossal iron caissons (open below and resting upon the sand itself), which, with the increasing weight of the pillars built on top of them, as the sand under them was removed to the upper world, sank deeper and deeper, this lowering was effected. In order, however, to render the caissons capable of resistance, the atmosphere, by means of enormous air-pumps, was compressed in them in such a manner that their power of resistance could be increased to meet any exigency. When the caisson or air-chamber, as it is called with propriety, struck upon the rock (that is, when the sand-pumps working it had removed

the gigantic layers of sand through which it had to penetrate, and when the pier that rests on the caisson was separated only by the air-chamber from the rock), then it (the caisson) was filled with concrete, which completed the indissoluble connection between pier and rock. When the last particle of compressed air in the air-chamber had given place to this indestructible compound of cement and stone, all that remained to be done was to fill up in a similar manner the vertical shafts which communicated between the air-chamber and the upper world, and the whole structure of the pier, in solid compactness incorporated with the rock far below, stood aloft, ready to receive the superstructure.

At present both the piers are finished. It is laid down in the plan that the portion of the piers above water, and exposed to the action of the air, shall be built of the strongest granite, while the parts extending from the rock to a certain point under the lowest water shall be built from limestone blocks from Grafton quarry, in Illinois. Their total height will then be 194 and 165 feet, respectively—the east pier being the highest, because the rock on the Illinois side of the river lies deeper than it does on the Missouri side. The hexagonal foundation of the piers is 82 feet in length, their weight amounts to from 28,000 to 33,000 tons. No less solid and massive is the construction of the abutments. In their case, likewise, they had to go down to the rocks. Upon the Missouri side of the river this presented little difficulty, which, however, was made up for on the Illinois side, on account of the nature of the American Bottom.

These four piers support the structure, which now approaches its termination with rapid strides. Upon the masses thereof, which are put together to last for an eternity, the bridge itself will rest. They will carry three arches, which will measure—those extending from the abutments to the piers 500 feet each, and the span of the principal arch between the two piers 520 feet. The possibility of erecting such long spans, considering the enormous weight which they will have to bear, was at first strongly doubted, and still more strongly contested. Cast-steel

is selected as the material of these arches. Each of them will be double, that is to say, will consist of two concentric arches 12 feet apart, and joined together by a network of the most massive steel braces. Such double arches will be stretched four in each span, running parallel with each other from pier to pier. Upon their iron necks will be laid the real bridge in two stories. The lower of these stories is intended for the railways; the upper belongs to vehicles and foot-passengers. Being 50 feet wide, both will afford space enough to satisfy the demands of the liveliest traffic. Meanwhile, underneath, the largest steamers, even when the water is at its highest, may dash along; and while over them the East and West exchange their riches, they may, unimpeded, perform the exchange between the North and the South. St. Louis, however, will not only have the boldest arch bridge in the world, but it will also have the first structure of the kind built of steel.

The street leading directly to the bridge—Washington Avenue—is one of the broadest and finest in St. Louis. Like the whole of the St. Louis shore, it slopes rapidly when it approaches the river. It will be sufficient, therefore, to prolong the bridge, which rises about 50 feet above the shore, a comparatively short distance—three blocks—1,049 feet into the city, in order that its level may equal that of Washington Avenue. A viaduct of five arches, of 27 feet span each, under which the traffic of the cross-streets below may be carried on unobstructedly, will form the continuation of the bridge, and of course will be of the same height and breadth. At the end of it the high level road will pass into Washington Avenue, which still continues to rise, whereas the low level road, with its railways, will run into a tunnel, 4,800 feet in length, which passes under a large portion of the city, and terminates at the spot where the great St. Louis Central Railroad Depot will be erected—where at present the Pacific Railroad crosses Eleventh Street. The tunnel will be 15 feet wide and 17 feet high. Dikes and trestles, branching off, according to the convenience of the different railroad companies, to north, south, or east, will

complete the connection with the bridge. The upper carriage-way will be carried out upon solid constructions as far as Fourth Street in East St. Louis, from which point the Missouri traffic will separate in all directions.

It is expected that the bridge will be completed by the end of the present year. The cost will be between \$4,500,000 and \$5,000,000.

PLACES OF AMUSEMENT.

De Bar's Opera-House, on Pine Street, between Third and Fourth, is the leading theatre.

The *Olympic Theatre*, on Fifth, between Walnut and Elm Streets, is a first-class place.

The *Apollo Gardens* is a German theatre, on the southeast corner of Fourth and Poplar Streets.

The *Varieties Theatre*, on Market Street, between Fifth and Sixth Streets, is a favorite resort for gentlemen.

CHURCHES.

The first church ever established in St. Louis was a log-building, occupying the spot where the Roman Catholic Cathedral now stands. It was, of course, a Roman Catholic church. The first recorded church history is that in 1766, two years after the first settlement, Father Meurin administered the sacrament of baptism in a tent. The first Protestant church established here was the Presbyterian, organized in April, 1816. The first Episcopal service was held in 1819. The following are the churches most attractive to strangers:

The *Roman Catholic Cathedral*, on Walnut Street, between Second and Third, is an elegant edifice, 58 feet in height, with a front of polished freestone. It is 136 feet long, is ornamented by a Doric portico, and possesses a fine chime of bells, the largest of which weighs 2,600 pounds.

The *Church of the Messiah* (Unitarian), at the corner of Olive and Ninth Streets, is a splendid Gothic edifice.

St. George's Church (Episcopal), corner of Locust and Seventh Streets, is an elegant building.

The *First Presbyterian Church*, situated on the northwest corner of Fourteenth

Street and Lucas Place, is a costly brick edifice.

The *Second Presbyterian Church*, on Seventeenth Street and Lucas Place, is a fine stone building.

The *Baptist Church*, on the southwest corner of Sixth and Locust Streets, is a brick structure of handsome design.

The following are also fine buildings:

The *Union Methodist Church*, corner of Eleventh and Locust Streets.

The *Lutheran Church*, corner of Eighth and Walnut Streets.

The *Congregational Church*, on Locust Street, between Tenth and Eleventh Streets.

The *Presbyterian Churches*, corner of Eleventh and Pine Streets, and corner of Sixteenth and Walnut Streets.

In the southern, western, and northern parts of the city, there are also many fine churches.

The *Jewish Temple*, corner of Sixteenth and Pine Streets, is one of the finest ecclesiastical structures in the city.

PARKS AND PUBLIC SQUARES.

Lafayette Park is in the southern portion of the city, readily reached by the Fourth Street and Chouteau Avenue cars. It originally embraced a whole block of the City Commons—40 acres—but the four streets, 90 feet wide, by which the park is surrounded, have reduced its size to an area of 28 acres. The trees in this park have already grown to a considerable size. Shrubs and flowers, distributed in great abundance between the groves of higher shade-trees, give to the park a very lively appearance.

Hyde Park is situated on the summit of the first hill west of the Bellefontaine Road, on Salisbury Street, and can be reached by cars from Fourth and Locust Streets, or Fourth Street and Washington Avenue, or by the Fifth Street line. This park covers an area of four city blocks, and is handsomely enclosed with a substantial stone and iron fence, which is bordered by double rows of shade-trees. Nature has done more than art toward beautifying the grounds. The stately oaks furnish a shady retreat where hundreds of children and their teachers or parents meet, almost daily, during "picnic" season. Three lines of street-cars,

all terminating on Salisbury Street, at certain times of the year unload uncounted numbers of visitors to this park. It is the people's garden of North St. Louis.

In the centre of the city three comparatively small parks are laid out, nearly all at the same distance from the river, on Market, Olive, and Carr Streets. They are:

Washington Square, on Market and Eleventh Streets.

Missouri Park, on Olive and Thirteenth Streets, bordered by the two largest and prettiest churches of the city and opening on Lucas Place and Locust Street.

Carr Square, on Sixteenth Street.

Further out in the northern part of the town are *Clinton, Jackson, and Monroe Places*, on Jefferson, North Market and Warren Streets. The two buildings of the Webster School stand on Clinton Place.

In the southern part of the town are *Laclede and Gravois Parks*.

The park being laid out in *St. Louis Place*, near the new reservoir, between Sixteenth and Seventeenth Streets, is an immense parallelogram of 2,300 feet in width. It will be crossed in either direction by a wide macadamized street, and bordered on either side by two alleys of shade-trees, like the celebrated "Linden" in Berlin.

St. Louis Park, lately projected, is situated about five miles a little south of west of the Court-House, and is to contain 3,000 acres of land.

The *Missouri Park of Fruits*, situated 20 miles out on the Pacific Railroad, is a beautiful place, designed, when completed, to contain several thousand acres.

Though not strictly coming within the term park, the *Fair-Grounds of the St. Louis Agricultural and Mechanical Association* are practically such. The grounds, which were first occupied in 1856, embraced 50 acres, which at the time of purchase were a natural forest, and have been wonderfully improved by the addition of hundreds of choice trees and plants, the laying out of walks and drives, the erection of beautiful and convenient buildings for all fair-purposes, and the introduction of artificial ponds, mounds, etc.

"Fair week" is the gala season, not only for St. Louis, but for the people within a radius of hundreds of miles. Railroads and steamboats bring persons at half fare, and the city is a vast swarm of exhibitors and sight-seers from all the country around. During some days there have been present at the Fair-Grounds 80,000 persons within the enclosure at one time. Every year the attraction is made greater by the more liberal premiums offered, and the greater variety of articles included in the competition. This fair is open to the whole Mississippi Valley.

The Fair-Grounds at present embrace 85 acres, bounded by Grand Avenue, Kosuth Avenue, Bryan Avenue, and St. Charles plank-road, and can be reached by the cars on Franklin Avenue, on Fifth Street, from the corner of Washington Avenue and Fourth, or from Locust and Fourth Streets.

The grounds are now well set in blue grass and shaded with a beautiful grove of forest-trees, and through them are winding avenues, handsomely bordered with evergreens and trees of all other kinds, while an aqueduct from the city reservoir keeps seven ornamental fountains constantly in play, and furnishes an ample supply of water to every part of the grounds. Around the whole are large and commodious stalls for the accommodation of the stock, and convenient thereto is a grand mile drive, 40 feet wide, for the exercise and speeding of horses.

Buildings have been erected of such size and shape as not only to furnish ample room for the accommodation of visitors and exhibitors, but greatly to beautify the grounds.

The *Amphitheatre*, by far the largest in the United States, having an inside circumference of one quarter of a mile in extent, will seat comfortably 40,000 people. Around these seats (one above them and the other below) are two promenades, each of which will hold 25,000 persons. Thus it will be seen that this immense structure will shelter as many as 90,000 people. Under the Amphitheatre are 100 refreshment booths.

In the centre of this building is the *Pagoda*, around which the fine stock is

exhibited. It has three stories, is 90 feet high, and has a centre flag-pole 190 feet in height.

The *Floral, Mechanical, Fine Art, and Textile Fabric Halls*, are all well adapted to exhibition purposes.

The *Gallinarium*, 30 feet in diameter, and three stories high, is made entirely of wire. It contains 90 apartments, with all the conveniences for the exhibition and keeping of poultry.

The *Machine-Shop* is 300 feet long, with shafting the full length, and furnished with a steam-engine for testing all kinds of machinery.

The *Cottage* contains four saloons, which are well furnished for the comfort and convenience of ladies.

The *Agricultural Department* is 161 feet long and 50 feet wide.

The *Musie Hall*, a building 80 feet long and 40 feet wide, is erected exclusively for the display of musical instruments.

The grounds are always open, and except during the Fair week the price of admission is only 10 cents.

The *Missouri Botanical Gardens*, owned by Mr. Henry Shaw, are situated about five miles southwest from the Court-House, on Tower Grove Avenue (entrance at the western terminus of Floral Avenue), which begins at Grand Avenue and extends west to Tower Grove Avenue. On this fine, elevated site, overlooking the city from the west, and a wide range of the beautiful surrounding country, will be found probably the finest public gardens in the United States.

The grounds are divided into three sections, as follows:

The *Herbaceous and Flower Garden*, embracing 10 acres, contains almost every flower that can be grown in this latitude, and in it are several plant-houses, in which are thousands of exotic and tropical plants.

In the *Fruiticetum*, or Experimental Fruit Garden, comprising six acres, are cultivated all the various kinds of fruit which grow in the open air in this climate, including 40 kinds of grapes, 20 of strawberries, and all other kinds and varieties.

The *Arboretum* is very extensive, comprising 25 acres, and embracing the different varieties of ornamental and forest trees that will grow in this climate.

In this section is the *Pinetum*, containing coniferous trees—of pines alone 29 species; the *Quercetum*, embracing varieties of the oak; and the *Salicetum*, embracing about 100 species of the willow.

The *Labyrinth*, or Maze, is an intricate, puzzling, hedge-bordered pathway, leading to the summer-house in the centre. The hedges embrace all varieties, and are kept clipped and in good order.

The private garden, where the graperies are situated, is in the rear of the house.

The neat yet substantial fire-proof building, east of Mr. Shaw's residence, is devoted to the Museum, Herbarium, and Botanical Library, on the main floor, the Reading and Lecture Room being in the basement.

The improvements were commenced by Mr. Henry Shaw about 1857, with a design to establish an institution for the promotion of the sciences of Botany and Horticulture.

Visitors are admitted daily, from sunrise to sunset, except on Sundays and holidays; then after 2 p. m.

To insure the perpetual maintenance of the Garden, the proprietor has made an endowment of about 400 acres of valuable lands immediately surrounding it, which, together with the Garden, are to be left in the charge of trustees.

The *Lower Grade Park*, situated near the Botanical Garden, is the newly-projected Park of Tower Grove, consisting of 200 acres. It is a parallelogram, being five times longer than broad. Mr. Henry Shaw, the projector and donor to the city of the Garden and the Park, is of English birth, and came to St. Louis more than fifty years ago. During the time he was in business he was a prosperous hardware merchant; of late years he has devoted his time exclusively to the Garden and to his private affairs.

PUBLIC AND PROMINENT BUILDINGS, AND PLACES NOT OTHERWISE CLASSIFIED.

• MUNICIPAL.

The *Court-House*, occupying the square bounded by Fourth, Fifth, Chestnut, and Market Streets, is one of the finest edifices of its kind in the United States, having cost over a million and a quarter

of dollars. It is built of Genevieve limestone, and the fronts are adorned with beautiful porticos, while the dome, which is of fine proportions, greatly resembles that on the Capitol at Washington. It is unfortunate, however, that, owing to defects in lighting, the rotunda and generally the interior of the building present a dark and gloomy appearance.

This is the recognized centre of the city; from this point all distances are measured, and here converge the wires of the fire-alarm telegraph. From the top of this building is to be had the best view of the city.

The *Temple of Justice*, Clarke Avenue, between Eleventh and Twelfth Streets, occupying an entire block, is an elegant structure. In this building are the jail, and the city and county courts and offices.

The *Union Market* occupies the square bounded by Fifth, Sixth, Greene, and Morgan Streets.

NATIONAL.

The *Custom-House*, at the southeast corner of Third and Olive Streets, is a spacious, substantial edifice of Missouri marble. It occupies the site of one of the first theatres erected in St. Louis, and is built upon piles driven upward of 20 feet into the ground. It was erected at a cost of \$356,000. Underneath the Post-Office, which occupies the main floor of the building, is a vault which extends throughout the basement. The second and third stories are used for the purposes of the customs and United States Courts.

The *Arsenal*, situated in the extreme southern portion of the city, immediately on the bank of the river, is a beautiful spot where the statue to General N. Lyon is to be erected. It is reached by the Fifth Street Railway.

The *Marine Hospital* is situated in the southern part of the city.

EDUCATIONAL AND CHARITABLE.

The school system of St. Louis is unusually complete. The public schools may be classified as follows:

The *Polytechnic Building* is a large, five-story edifice, at the corner of Chestnut and Seventh Streets.

On the first floor are the offices and assembly-room of the Board of Public Schools.

On the second floor is the *Public School Library*, containing over 24,000 volumes. Any person may become a life-member by the payment of \$12. The department of Natural Science is very full.

On the third floor is the *O'Fallon Polytechnic Institute*, which is open for five months in the year, and is free to all who are qualified to avail themselves of its advantages, which include the elementary branches of a scientific and technological course.

The *Intermediate School* (a branch of the High School), and the rooms of the *Academy of Science and Historical Society*, are on the same floor.

The *Normal School* is on the fourth floor.

The *High School*, corner of Fifteenth and Olive Streets, is a fine building, erected in 1855 at a cost of \$50,000. The course is for four years, and the average attendance is 400 pupils. In the third floor is an assembly-hall with seats for 700 persons.

The *District Schools* number about 40, and those most recently built (14 or 15 in number) are all upon the same plan, each being three stories high, and having four rooms on a floor, with wide halls and sliding partitions, by which each pair of rooms adjacent may be thrown into one. By this means abundance of light is secured, and a careful watch over the pupils is more easily obtained. Each room is under the charge of a single teacher, and each building accommodates 700 pupils, the total accommodations in the public schools being for 23,000 pupils.

The *University of St. Louis* is at the corner of Pine and Sixteenth Streets.

The *Medical Department of the Missouri University* is at the corner of Eighth and Gratiot Streets.

The *Washington University* is at the corner of Pine and Sixteenth Streets.

The *Western Hebrew College* is at 1107 Morgan Street.

The *Roman Catholic* institutions will be classified under a separate heading.

The *Mercantile Library* is at the corner of Fifth and Locust Streets, the associa-

tion having been organized in 1816. The *Library Hall* is a handsome brick building, which was completed in 1851, at a cost of \$140,000.

In the third story is a magnificent public hall, capable of seating 1,800 persons.

In the second story are the library and reading-room. The library contains between 30,000 and 40,000 volumes, and is constantly increasing. It also possesses valuable paintings, coins, and statuary, among which may be mentioned Miss Hosmer's life-size statues of *Beatrice Cenci* and *Cleone* (a nymph of Mount Ida); a marble bust of *Thomas H. Benton*, by James W. McDonald; a marble bust of *Robert Burns*, by Wm. Brodie, and a sculptured slab of marble from the interior wall of a palace in *Nineveh*.

The reading-room is elegantly fitted up, and contains a large collection of magazines and papers from all parts of the world.

Both library and reading-room are open free to strangers. Hours, from 9 A. M. to 10 P. M.

Among the numerous charitable institutions of St. Louis are the following:

The *City Hospital*, corner of Lafayette Avenue and Lime Street, is noted for the extent and completeness of its accommodations for the sick.

The *Quarantine Hospital* is 10 miles below the city, and on the river. The hospital-grounds consist of 50 acres, upon which stand wooden hospital buildings with accommodations for about 300 patients. The officers' quarters are built of stone, and the grounds are well planned, and are ornamented with shrubbery.

The *Insane Asylum* is near Shaw's Gardens, from which it can be seen. It is a splendid institution, and in its construction no expense has been spared. Every appliance which science or experience can suggest as likely to conduce to the comfort and recovery of the inmates is to be found here. The surroundings are delightful.

ROMAN CATHOLIC INSTITUTIONS.

From the number of Roman Catholic educational establishments, churches, and charitable institutions, in St. Louis, it has been designated the "Rome of America."

It is said that its charitable institutions are as extensive as those of any city in the United States, not excepting New York, many of them having been founded and fostered by Archbishop Kenrick.

A stranger, desiring more particular information than it is practicable to give here, can obtain it from any parish priest in the city.

The *St. Louis University*, at the corner of Ninth Street and Washington Avenue, is the oldest educational institution in St. Louis, having been founded by members of the Society of Jesus, in 1829.

The institution possesses a valuable museum, and very complete philosophical and chemical apparatus.

The library contains over 25,000 volumes, among them some of such rarity and value that no notice of the university would be complete without a reference to them. First among them is a "Geography of the Earth," illustrated with maps and plates of men, animals, birds, and scenes, in all the countries described; all printed in various-colored inks, true to nature and accurately portrayed. It was published by Bleaux, at Amsterdam, for subscribers, in eleven large folio volumes, in 1662. The type is clear, the paper fine, yet very strong; the maps, even of America, very accurate, and especially of those portions where the Jesuits had their most extensive missions. The coloring seems as fresh and bright as if done last year, instead of over two hundred years ago. Among other works particularly worthy of notice are a theological dictionary entitled "Summa Angelica," by Angelus Clavasis, printed July 4, 1490; also another work printed in 1499. Here are the sermons and homilies of Augustine printed in 1521; also Cicero's Offices printed in 1539, and an "Epitome of Antiquity," printed in 1533, most beautifully illustrated with medallions; there are also several editions of the Bible, with beautiful marginal and other illustrations, in various-colored inks, printed in 1556, and down to 1628.

The *College Villa*, situated near the city, is large and beautiful, with ample buildings, spacious groves, and recreation-grounds.

A medical department is connected with the university.

The *College of the Christian Brothers* is at the corner of Eighth and Gratiot Streets. It was established in 1849, and in 1852 was empowered by the State Legislature to confer degrees and academic honors. The average number of students is from 370 to 400 in constant attendance.

St. Patrick's Academy, corner of Cass Avenue and Seventh Street, is a branch of the college of which it is merely a preparatory department.

There are seven other schools in St. Louis, and one in Carondelet taught by the Christian Brothers, who in 1870 had under their charge 2,137 pupils.

There are nineteen parish schools, with an aggregate attendance of 6,925 children.

The following convents have schools for female pupils connected with them :

Convent and Academy of the Sacred Heart, corner of Fifth and Labadie Streets; *Convent and Academy of the Visitation*, corner of Twenty-second Street and Cass Avenue; *Ursuline Convent and Academy*, Second Street, Carondelet, and Ann Avenues; *Sisters of St. Joseph Academy and Convent*, at Carondelet; and *St. Vincent's Ladies' School*, corner of Tenth and St. Charles Streets.

The *Convent of the Sisters of Mercy*, corner of Twenty-third and Morgan Sts., constantly supports on an average 45 young girls, who are here trained to useful employments. There are also schools attached to this convent which accommodate over 400 pupils.

The *Convent of the Good Shepherd*, for the reformation of fallen women, is at the corner of Chestnut and Seventh Streets.

The *Convent of the Little Sisters of the Poor* supports about 70 helpless old people. It is at the corner of Eighteenth and Morgan Streets, and is dependent upon voluntary contributions.

The following orphan asylums are under the charge of the different charitable orders of the Church : *St. Bridget's Half-Orphan Asylum*, also *Deaf and Dumb*, corner of Twenty-sixth Street and Christy Avenue; *St. Vincent's German Male and Female Orphan Asylum*, Twentieth Street, between Cass Avenue and O'Fallon Street; *Male Orphan Asylum*, corner of Fifteenth Street and Clarke

Avenue; *St. Mary's Female Orphan Asylum*, corner of Tenth and Biddle Sts.; *Mullanphy Orphan Asylum for Females*, corner of Sixth and Labadie Streets; *House of the Angel Guardian*, corner of Tenth and Marion Streets; and *St. Philomena's Orphan Asylum*, on Summit Avenue.

The principal hospitals, either supported or managed by the Roman Catholics, are : *St. Ann's Widows' Asylum and Lying-in Hospital*, corner of Tenth and O'Fallon Streets; *St. Vincent's Insane Asylum*, corner of Decatur and Marion Streets; *St. Louis Hospital*, corner of Spruce and Fourth Streets, conducted by Sisters of Charity, and having accommodations for 400 patients; and *St. Joseph's Hospital*, corner of Osage Street and Carondelet Avenue.

Attached to nearly all the city churches are *Conferences of St. Vincent de Paul*, having in the aggregate about 1,000 members. These organizations are formed for house-to-house visitation and relief of the sick and poor.

There is one convent of cloistered nuns, of the *Carmelite* order. It is on Clay Farm, near Calvary Cemetery.

OTHER BUILDINGS AND PLACES OF INTEREST.

The *Merchants' Exchange*, fronting on Main and Commercial Streets, between Market and Walnut Streets, is a fine edifice. It was erected in 1856-'57, at a cost of \$75,000. The height on Main Street is 75 feet, length 125 feet, and depth 85 feet. The main hall, or "Exchange," is a fine room, 102 by 81 feet. The reading-room is on the south side of the main hall. The best time to visit this building is between 11½ and 12 o'clock, when the merchants are "on 'Change." A permit from the superintendent is necessary.

The *New City Water-Works*, completed in 1870, are upon a grand scale. The water is taken from the Mississippi River, at what is called Bissell's Point, close to the northern boundary of the city. It first enters an iron tower, 80 feet high, sunk to the rock, and provided with gates at different heights, so that the water may be taken at any desired depth below the surface. In this tower are several

strainers and screens to free the water from foreign matter before entering the pump-well. From this tower a pipe of $5\frac{1}{2}$ feet interior diameter, and 300 feet in length, conducts the water to the pumping-engines that are to lift it into the settling-reservoirs. These engines are two in number, and are duplicate engines of the Cornish-bull class, each of a capacity to pump 17,000,000 gallons in twenty-four hours. The foundations for these engines are of the most substantial character, and, to provide for the rapidly-increasing demand, have been constructed large enough to hold three engines. To free the water from the sedimentary matter, particularly at seasons of high water, four settling-reservoirs, each 240 by 660 feet, and averaging in depth about 20 feet, have been constructed close to the river-bank. The water pumped by the low-service engines is admitted at will into either of these four reservoirs; there it is left at perfect rest for twenty-four hours, during which time about nineteen-twentieths of the sedimentary matter falls to the bottom. During the next day the water is drawn off by a system of gates so arranged as to allow the water to discharge at all times near its surface; the last three or four feet of water is not drawn off, but on the fourth day is allowed to run out into the river, taking with it most of the sediment, while the remainder is washed out with the aid of an engine, and the reservoir is then ready for a new supply. The water, after leaving the settling-reservoirs, runs by gravity, through a covered conduit about one-half mile long, into a small reservoir near the high-service engines, called the clear-water well, and from it through a short conduit to the high-service engines.

These are two in number. Each of them must be able, according to contract, to raise 16,500,000 gallons to a height of 270 feet within twenty-four hours. They pump through a force-main five miles in length, and of 36 and 30 inches diameter, into the storage-reservoir on Compton Hill. To relieve the engines and force-main from any concussion, the stand-pipe has a height of 242 feet above the ordinary high-water level of the river. It is about

one-half mile from the high-service engines. Before reaching the storage-reservoir two pipes of 20-inch diameter branch off into the city and connect it with the old system of distribution; while a third feeder of the same size starts from the storage-reservoir so as to secure continual motion, and thereby prevent the water from becoming foul.

The storage-reservoir covers about 17 acres of land, and is built near the city boundary, at the most elevated point within its limits. The elevation of its water surface is 26 feet above the highest street grade, and is ample to supply the upper story of every house in the city.

Masonic Hall, corner of Market and Seventh Streets, is a splendid edifice, and a credit to the order.

Lucas Place is the fashionable street. It extends from Wright to Seventeenth Street.

The *Levee* should be visited.

Bellefontaine Cemetery is a beautiful burial-ground, situated about one mile from the river, on the road of the same name, five miles from the Court-House. It embraces about 350 acres of land, is tastefully decorated with shade-trees and shrubbery, and contains the remains of most of the old settlers and residents of St. Louis. Route by Fourth Street and Broadway cars to the Toll-gate, and thence by stage: through-fare, 20 cents.

Calvary Cemetery, situated a short distance north of Bellefontaine, is noted for its beauty and improvements.

There are many other handsome burying-grounds, among which are those of the Israelites, Lutherans, and other denominations.

VICINITY.

Carondelet, which might appropriately come under the above heading, has already been mentioned in the general description of the city, with which it is now incorporated. The views here are charming.

The *Coal-Works* at East St. Louis, on the opposite side of the Mississippi, and at the bluffs, a distance of 10 or 12 miles, will repay the trouble of a visit, if the traveller wishes to learn how the city is supplied with coal.

The *Mounds*, about which the scientific and the curious are remarkably interested, are to be seen on the American Bottom, about 4 or 5 miles from the city, on the opposite side of the river. They stand upon a low plain, rising like eggs, and are great curiosities. One of the largest has recently been dug away to form the approach to the eastern end of the great bridge, and by this means it has been ascertained that they are the monumental burying-places of an extinct race, though, from the small number of skeletons found, it is thought that none but the most important persons were buried in them.

Jefferson Barracks is upon the Mississippi, 12 miles south of the city, situated upon elevated ground. Here the Government holds 1,700 acres of land, and here are large barracks and officers' quarters.

SHORT PLEASURE EXCURSIONS.

There are a number of places within a short distance of St. Louis to which very agreeable pleasure-trips can be made; among them are the following:

The *Lead, Copper, and Iron Mines* of Missouri are within a very short distance of the city, and will amply repay a visit. They can be reached by rail or by private conveyance. It is advisable for the tourist, who intends making the jaunt, to take the advice of the proprietor or clerk of his hotel as to which mines to visit, and how to reach them. The same remark will apply to trips to the

Sulphur Springs, which are visited at different points along the lines of railway diverging from St. Louis.

Perry Springs, in Illinois, a short distance above St. Louis, have become very popular, and are provided with the accessories of a fashionable watering-place.

The *Iron Mountains*, on the Iron Mountain Railroad, are world-wide curiosities.

The *Valley of Arcadia* is adjoining the Iron Mountains. It is a beautiful spot, rapidly being covered with highly-cultivated farms and handsome dwellings.

Caves.—Within a short distance of the city, and of easy access, are some caves, which are considered great curiosities, and are much visited.

Pleasant trips may be made to *Kirkwood*, 14 miles distant, on the Missouri Pacific Railway, and to *Columbia*, 100 miles distant, upon the North Missouri Railway, it being noted as the seat of the State University. Trips by steamer can also be made to various points along the Mississippi and Missouri Rivers.

ROUTE VIII.

NEW YORK TO ST. LOUIS.

Via Route II. to Cleveland, and thence via Cleveland, Columbus, Cincinnati & Indianapolis, and Indianapolis & St. Louis Railways. (Time, 48 hrs.—Fare, \$27.)

CLEVELAND, COLUMBUS, CINCINNATI & INDIANAPOLIS RAILWAY STATIONS.—Cleveland, 628 miles from New York; Grafton (junction of Toledo Division of Michigan Southern & Lake Shore Railway), 653; Wellington, 664; Shelby (connects with Lake Erie Division of Baltimore & Ohio Railway, formerly Sandusky, Mansfield & Newark Railway), 695; Crestline (junction of Columbus Division with Indianapolis Division, connects with Pittsburg, Fort Wayne & Chicago Railway), 703; Galion, 707; Marion (connects with Atlantic & Great Western Division of Erie Railway), 728; La Rue, 742; Bellefontaine (connects with Cincinnati, Sandusky & Cleveland Railway), 768; De Graff, 777; Sidney (connects with Dayton & Michigan Railway), 791; Versailles, 809; Union (connects with Dayton & Union and Columbus, Chicago & Indiana Central Railways), 826; Winchester, 835; Muncie, 856; Anderson (connects with Columbus, Chicago & Indiana Central Railway), 874; Pendleton, 882; Fortville, 889; Indianapolis (connects with Terre Haute & Indianapolis, Indianapolis & St. Louis, Jeffersonville, Madison & Indianapolis, and Indianapolis, Cincinnati & Lafayette Railways), 910.

INDIANAPOLIS & ST. LOUIS RAILWAY STATIONS.—Indianapolis, 910 miles from New York; Danville, 929; Reno, 938; Greencastle (connects with Louisville, New Albany & Chicago Railway), 949; Carbon, 963; Terre Haute (connects with Evansville & Crawfordsville Railway), 982; Paris, 1,001; Kansas, 1,014; Charleston, 1,027; Mattoon (connects with Chicago

Branch of Illinois Central Railway), 1,038; Shelbyville, 1,061; Pana (connects with Northern Division Illinois Central Railway, and Springfield & Illinois South-Eastern Railway), 1,077; Nokomis, 1,089; Hillsboro', 1,105; Litchfield, 1,116; Bunker Hill, 1,135; Bethalto, 1,146; Alton Junction (connects with Alton Branch and Keokuk Packet Line), 1,150; Edwardsville Crossing, 1,153; East St. Louis, 1,171; St. Louis (connects with all railway and steamboat lines), 1,172.

Cleveland, O. (628 miles). (See page 17.)

Grafton, O. (653 miles), is a village in the southeastern extremity of Lorain County, and is the junction of the *Toledo Division of the Michigan Southern & Lake Shore Railway*.

Shelby, O. (695 miles), is a pleasant and prosperous village, in Richland, one of the most fertile counties of the State. The *Lake Erie Division of the Baltimore & Ohio Railway*, formerly the *Sandusky, Mansfield & Newark Railway*, connects here.

Crestline, O. (703 miles), has been described in ROUTE III. (See page 21.)

Galion, O. (707 miles), has been described in ROUTE V. (See page 30.)

Marion, O. (728 miles), has already been described in ROUTE V. (See page 30.) The *Atlantic & Great Western Division of the Erie Railway* connects here.

Bellefontaine, O. (768 miles), is so named from the numerous fine springs in the neighborhood. It is surrounded by a rich, populous, and prosperous country, and has a large and rapidly increasing trade. There are several manufactories here, and also the county buildings, this being the capital of Logan County. The *Cincinnati, Cleveland & Sandusky Railway* connects here.

Sidney, O. (791 miles), a handsome village, the capital of Shelby County, stands upon an elevated plateau on the western bank of the *Great Miami River*, which affords a fine water-power. A navigable feeder of the *Miami Canal* also passes through the village. There is a public square in the centre of the place. Sidney is at the intersection of the *Dayton & Michigan Railway*.

Union, O. & Ind. (826 miles), is partly in Darke County, Ohio, and partly in Randolph County, Indiana. It is a flourishing place, and is the point where the *Dayton & Union*, and the *Columbus, Chicago & Indiana Central Railways* connect.

Winchester, Ind. (835 miles), is situated upon *White River*, and is the capital of Randolph County. It is a thriving place.

Muncie, Ind. (856 miles), the capital of Delaware County, is delightfully situated in a fertile country, on the bank of *White River*. It occupies the site of a town of the Muncie Indians.

Anderson, Ind. (874 miles), the capital of Madison County, is beautifully situated upon the left bank of *White River*. It is built upon a bluff some fifty feet above the river, and is in the midst of a very fertile region. A few miles above the city is a dam by which a fall of 34 feet is obtained, the extensive water-power being used by numerous manufacturing establishments. The *Columbus, Chicago & Indiana Central Railway* connects here.

Pendleton, Ind. (882 miles), is a prosperous village on *Fall Creek*, which affords here a good water-power. Marble and limestone are quarried in the neighborhood.

Indianapolis, Ind. (910 miles). Here the traveller is transferred to the *Indianapolis & St. Louis Railway*. (For description, see page 43.)

Danville, Ind. (929 miles), the capital of Hendricks County, is the seat of the county seminary. The new county buildings cost \$180,000.

Greencastle, Ind. (949 miles), has been described in page 44. The *Louisville, New Albany & Chicago Railway* connects here.

Terre Haute, Ind. (982 miles), has been described on page 45. From this city there are two roads to St. Louis, one of them has been described in ROUTE VII. The *Evansville & Crawfordsville Railway* connects here.

Paris, Ill. (1,001 miles), is a flourishing place, and the capital of Edgar County.

Charleston, Ill. (1,022 miles), the capital of Coles County, is situated on the

edge of Grand Prairie, and is the seat of a medical college. It is one of the most prosperous cities on the line of the road, having a very large trade and important manufacturing interests.

Mattoon, Ill. (1,038 miles), is one of the principal towns between Terre Haute and St. Louis. It has flourishing business, and is where the *Chicago Branch of the Illinois Central Railway* connects. The machine-shops, round-house, and car-works of this division of the road are situated here.

Shelbyville, Ill. (1,061 miles), the capital of Shelby County, is a rapidly-growing place. It is situated upon the *Kaskaskia River*. The public-school building is a handsome edifice.

Pana, Ill. (1,077 miles), an incorporated city, is a place of some importance as a railway centre, and being in a rich agricultural country does a large business. Connections are made here with the Northern Division of the *Illinois Central Railway*, and with the *Springfield & Illinois Southeastern Railway*.

Millsboro', Ill. (1,105 miles), the capital of Montgomery County, is situated on a fork of *Shoal Creek*. It has unusual manufacturing advantages, and is delightfully located.

Litchfield, Ill. (1,116 miles), situated on a high and fertile prairie, contains several steam-mills, and the construction and repair shops of this portion of the road, besides a number of manufactories. There are several grain-elevators here, and the Litchfield coal-mines afford an abundant supply of fuel. The public square is ornamented with trees and shrubbery. Litchfield was incorporated as a city in 1859.

Bunker Hill, Ill. (1,135 miles), which is built on a high rolling prairie, is one of the pleasantest places on the road.

Bethalto, Ill. (1,146 miles), is where the road leaves the prairie and enters the *American Bottom*, as the strip of rich alluvial land between the *Mississippi River* and the bluffs is called; scattered over it in all directions are numerous lakes, bayous, and sloughs. This bottom is often inundated by floods. The last time that any serious damage resulted from this cause was in 1844.

Alton Junction, Ill. (1,150 miles), is where a branch to *Alton* diverges, connecting with the *Keokuk Packet Line*, on the *Mississippi River*.

East St. Louis, Ill. (1,172 miles), is a suburb of St. Louis, and is the seat of large manufactories.

St. Louis, Mo. (1,173 miles). (See page 46.)

ROUTE IX.

NEW YORK TO ST. LOUIS.

Via Pan-handle Route, which is Route VI. to Cincinnati; thence via Ohio & Mississippi Railway.

OHIO & MISSISSIPPI RAILWAY.—STATIONS.—Cincinnati, 758 miles; Lawrenceburg (connects with Indianapolis, Cincinnati & Lafayette Railway), 778; Aurora, 782; Osgood, 810; North Vernon (connects with Madison Branch of Jeffersonville, Madison & Indianapolis Railway), 831; Seymour (connects with Main Line of Jeffersonville, Madison & Indianapolis Railway) 845; Medora, 864; Mitchell (connects with Evansville, New Albany & Chicago Railway), 885; Loogootee, 916; Washington, 931; Vincennes (connects with Evansville & Crawfordsville Railway), 950; Olney, 981; Clay City, 996; Xenia, 1,013; Salem, 1,029; Odin (connects with Chicago Branch of Illinois Central Railway), 1,034; Sandoval (connects with Main Line of Illinois Central Railway), 1,038; Carlyle, 1,051; Trenton, 1,068; Lebanon, 1,075; Caseyville, 1,089; East St. Louis, 1,097; St. Louis (connects with all railway and steamboat lines), 1,098.

Cincinnati, O. (758 miles), has already been described. (See page 31.)

Laurenceburg, Ind. (778 miles), the capital of Dearborn County, is situated on the *Ohio River*, at the end of the *Whitewater Canal*, which affords a good water-power. The *Indianapolis, Cincinnati & Lafayette Railway* connects here.

Aurora, Ind. (782 miles) is a beautiful city on the *Ohio River*, doing a large business as a shipping-port for the rich farming country of which it is the outlet.

North Vernon, Ind. (831 miles), is the connection of the *Madison Branch of the Jeffersonville, Madison & Indianapolis Railway*.

Seymour, Ind. (845 miles), is a growing village, at the intersection of the *Jeffersonville, Madison & Indianapolis Railway*.

Medora, Ind. (864 miles), is a small village situated near the *East Fork of White River*.

Mitchell, Ind. (885 miles), is at the intersection of the *Evansville, New Albany & Chicago Railway*.

Washington, Ind. (931 miles), the capital and principal town of Daviess County, is 3 miles east of the *Wabash & Erie Canal*.

Vincennes, Ind. (950 miles), is situated upon the *Wabash River*, which is here navigable for steamboats. It is the oldest town in the State, having been settled by French Canadians, about the year 1735, who for several generations lived without other neighbors. Until 1813 it was the seat of the territorial government, and is now the capital of Knox County. It contains several manufacturing. The *Evansville & Crawfordsville Railway* connects here.

Winey, Ill. (981 miles), is the capital of Richland County, the general character of which is suggested by the name. It is one of the most prosperous places on the line of the road, and contains a school-house which cost \$80,000.

Clay City, Ill. (996 miles), is a place of about 1,000 inhabitants, situated on the *Wabash River*, just on the edge of the prairie.

Xenia, Ill. (1,013 miles), is a small but pleasant place.

Salem, Ill. (1,029 miles), the capital of Marion County, is a place of about 1,500 inhabitants, and is growing in importance.

Odin, Ill. (1,034 miles), from its railroad facilities is of some importance as a shipping-point. The *Chicago Branch of the Illinois Central Railway* connects here.

Sandoval, Ill. (1,038 miles), is at the crossing of the *Main Line of the Illinois Central Railway*. It is a prosperous place, in the midst of a fine fruit-growing region. The *Ohio & Mississippi*

company has an engine-house and large repair-shops here.

Carlyle, Ill. (1,051 miles), is situated on the margin of a fine prairie, on the right bank of *Kaskaskia River*, and is a lumber-market of some importance, logs being floated to this point, where they are made into lumber and sent to St. Louis.

Trenton, Ill. (1,068 miles), is an important shipping-place for corn and wheat.

Lebanon, Ill. (1,075 miles), is a beautifully-situated place, and is the seat of *McKendree College*. It is well built, and contains a handsome Union school-house.

Caseyville, Ill. (1,089 miles), is where the traveller first enters the great American Bottom. It is just at the foot of the bluff, and is one of the principal points from which the city of St. Louis is supplied with coal; the bluffs being underlain by inexhaustible mines of coal, veins of from six to eight feet in thickness cropping out along the river for many miles.

East St. Louis, Ill. (1,097 miles), is a small city, or more properly suburb, of St. Louis.

St. Louis, Mo. (1,098 miles). (*See page 46.*)

ROUTE X.

BALTIMORE TO ST. LOUIS.

Via Baltimore & Ohio, Little Miami and Ohio & Mississippi Railways. (Time, 45½ hrs.—Fare, \$24.)

STATIONS.—BALTIMORE & OHIO RAILWAY—MAIN LINE.—Baltimore — Washington Junction (connects with Washington Branch Railway), 9 miles; Ellicott's Mills, 15; Elysville, 20; Marriottsville, 27; Sykesville, 31; Mount Airy, 42; Monrovia, 50; Frederick Junction, 58; Point of Rocks, 69; Hagerstown Junction (connects with Washington County Division), 79; Sandy Hook, 80; Harper's Ferry (connects with Winchester, Potomac & Strasburg Division), 81; Duffields, 87; Kearneysville, 92; Martinsburg, 100; North Mountain, 107; Cherry Run, 113; Sleepy Creek, 117; Hancock, 123; Sir John's Run (connects with stages for Berkeley Springs), 128; L. Cacapon

Siding, 156; Green Spring Run, 163; Paterson's Creek, 170; Cumberland (connects with Cumberland and Pennsylvania Railway), 178; Brady's Mill, 185; Piedmont (connects with Cumberland & Pennsylvania Railway), 206; Frankville, 211; Altamont, 223; Oakland, 232; Cranberry Summit, 242; Rowlesburg, 253; Tunnelton, 260; Newburg, 266; Grafton (connects with Parkersburg Division), 279; Fetterman, 281; Texas, 291; Benton's Ferry, 297; Fairmont, 302; Farmington, 312; Mannington, 319; Littleton, 337; Bellton, 344; Cameron, 351; Moundsville, 360; Benwood (connects with Central Ohio Division), 375.

STATIONS.—CENTRAL OHIO DIVISION.—Bellaire, 376 miles from Baltimore; Glencoe, 386; Warnock, 388; Lewis's Mills, 391; Belmont, 394; Burr's Mill, 396; Barnesville, 403; Spencer's, 410; Millwood, 411; Salesville, 413; Gibson's, 417; Campbell's, 420; Cambridge, 428; Cassel's, 432; Concord, 437; Norwich, 440; Sonora, 447; Coal Dale, 450; Zanesville (connects with Cincinnati & Zanesville Railway), 454; Dillon's Falls, 458; Pleasant Valley, 463; Claypool's, 466; Black Hand, 469; Clay Lick, 474; Newark (connects with Lake Erie Division and with Pittsburg, Cincinnati & St. Louis Railway), 480; Union, 486; Kirkersville, 491; Pataskala, 492; Columbusia, 493; Black Lick, 499; Taylor's, 501; Columbus (connects with Little Miami Railway, with Cleveland, Columbus, Cincinnati & Indianapolis Railway, with Columbus, Chicago & Indiana Central Railway, with Springfield & Columbus Railway, and with Columbus & Hocking Valley Railway), 509.

STATIONS.—LITTLE MIAMI RAILWAY.—Alton, 515; West Jefferson, 523; London (connects with London Branch of Cincinnati, Sandusky & Cleveland Railway), 534; South Charleston, 545; Cedarville, 556; Xenia (connects with Dayton & Xenia and Dayton & Western Railways), 564; Corwin, 578; Fort Ancient, 588; Morrow (connects with Cincinnati & Muskingum Valley Railway), 593; South Lebanon, 597; Foster's, 602; Loveland (connects with Marietta & Cincinnati Railway), 606; Milford, 615; Cincinnati (connects with railways diverging from

Cincinnati, and with Cincinnati & Louisville United States Mail Line Steamers), 629.

The grandeur of the scenery along the line of the Baltimore and Ohio Railway makes it one of the most attractive routes that tourists can take, and now it possesses the additional interest of having been the theatre of some of the most exciting scenes in the late civil war. The more important only can be mentioned here, but the road is described with great minuteness in APPLETONS' *HAND-BOOK OF TRAVEL—SOUTHERN TOUR*.

As a grand trunk line, the Baltimore & Ohio Railway is one of the most important in the country. The original road extended from Baltimore to Wheeling on the Ohio River, a distance of 379 miles, and was first opened to the public in 1853. Work was commenced on the 4th day of July, 1828, and the first section, from Baltimore to Ellicott's Mills, a distance of 15 miles, was opened for travel in August, 1830, the trial trip of the first locomotive being made on the 25th of that month.

Although commenced at the early date named, it was not until the 1st of June, 1853, that the road was finished, when for the first time a train passed over its entire length. The completion was celebrated by a grand excursion and public rejoicings along the whole line.

Since that time, by the construction of branch roads, and by the absorption of the *Central Ohio* and *Sandusky, Mansfield & Newark Railways*, it has added 842 miles to its track, and secured direct communication with *Lake Erie* over its own rails.

It suffered severely during the war, by the destruction of its track, bridges, and rolling-stock. On the 16th of May, 1861, several bridges were destroyed and portions of the track torn up. June 14th, the costly bridge at *Harper's Ferry* was wholly destroyed; and on the 23d of the same month 46 locomotive engines and upward of 300 cars, valued at nearly half a million dollars, were burned by order of the Confederate General, Joseph E. Johnston.

To see this road, and the numerous points and objects of interest tributary to it, the traveller should be prepared to

spend at least three days between Baltimore and Wheeling; a fortnight might well be passed in making the entire distance and returning.

Baltimore, Md., the principal city in the State, is fully described in "APPLETONS' HAND-BOOK OF AMERICAN TRAVEL—SOUTHERN TOUR."

In leaving the city by this road, one no sooner emerges from the dingy suburbs than the pleasures of the trip commence. Looking back, one obtains a good general view of the city, and then crosses

Carrollton Viaduct, a fine bridge of dressed granite, with an arch of 80 feet span, over *Gwynn's Falls*, after which the road soon reaches the long and deep excavation under the Washington Turnpike, which is carried over the railroad by the *Jackson Bridge*. Less than a mile farther the "deep cut" is encountered, famous for its difficulties in the early history of the road. It is 76 feet in extreme depth, and nearly half a mile in length. Beyond this the road crosses the deep ravine of *Robert's Run*, and, skirting the ore-banks of the old Baltimore Iron Company, now covered by a dense forest of cedar-trees, comes to the long and deep embankment over the valley of *Gadsby's Run*, and the heavy cut through *Vinegar Hill* immediately following it.

Washington Junction, Md. (9 miles), was formerly known as the *Relay House*, from the stages for Washington changing horses here. This name, however, has been changed, so as not to be confounded with a similar one given to a station on the Northern Central Railway. The branch to Washington diverges here. Except as a railway junction the place has no importance.

At this point the open country of sand and clay ends, and the region of rock begins at the entrance to the gorge of the *Patapsco River*. In entering this defile, there is a fine view of the *Thomas Viaduct* (named after the first President of the Company), a noble granite structure of eight elliptic arches, each of about 60 feet chord, spanning the stream at a height of 66 feet above the bed, and of a total length of some 700 feet. The pretty village of Elkridge Landing is in sight, and upon the surrounding heights are seen a number of pleasant country-seats.

The road now pursues its devious course up the river, passing the Avalon Iron Works, a mile beyond Washington Junction, and two miles farther we come to an iron bridge of 170 feet span, which crosses the river at the Ilchester Mills, at a very rugged part of the ravine. The Thistle Cotton Factory appears immediately beyond, and, soon after, Gray's Cotton Factory comes in view.

Ellicott's Mills, Md. (15 miles), is in a bold, rocky passage of the *Patapsco*, which runs leaping and dashing through the village in full view from the car-windows. The constantly-changing scenery is charming, and the old town itself is a study for an artist.

The Frederick Turnpike-road passes through the town here, and is crossed by the railroad upon the *Oliver Viaduct*, a handsome stone bridge of three arches, each of 20 feet span. Just beyond this bridge is the *Turpeian Rock*, a bold, insulated mass of granite, between which and the body of the cliff the railroad edges its way.

Elysville, Md. (20 miles), is the site of a large factory, which can be seen from the cars. The road here (within a short distance) twice crosses the river, the first time by a viaduct of three spans, each of 110 feet, and the second time by another nearly as long.

Marriottsville, Md. (27 miles), a small place, noted for its lime-quarries, along which the road runs, crosses the Patapsco by an iron bridge 50 feet span, and dashes through a sharp spur of the hill by a tunnel 400 feet long in mica-slate rock. After passing one or two rocky hills at Hood's Mill, it leaves the granite region and enters upon the gentle slopes of the slate hills, among which the river meanders until we reach the foot of *Parr's Ridge*, which divides the waters of the Patapsco from those of the Potomac.

Mount Airy, Md. (42 miles). From the summit of the ridge at this station is a noble view westward across the Fredericktown Valley, and as far as the Catoctin Mountain, some 15 miles distant. The road thence descends into the valley of Bush Creek, a stream of moderate curves and gentle slopes, except where in some places it breaks through ranges

of trap rocks, which interpose themselves among the softer shales. The *Monrovia* and *Ijamsville* Stations are passed at Bush Creek. The slates terminate at the Monocacy River, and the limestone of the Fredericktown Valley commences. The *Monocacy River* is crossed by an iron bridge of three spans, 110 feet each, and elevated about 40 feet above its bed.

The valley of the Monocacy is equally remarkable for its beauties of position, its rich agricultural resources, and its mineral wealth.

Frederick Junction, Md. (58 miles), better known as *Monocacy*, is the point of departure for Frederick City. Here the traveller will pass the *battle-ground* where, on the 9th of July, 1864, General Lew. Wallace and the Federal forces were defeated by a superior Confederate force, and compelled to retreat to Baltimore. Subsequent developments make it seem probable that the gallant stand at the Monocacy Bridge by General Wallace on that day, and the heavy loss that he inflicted on the enemy, saved Washington from capture on the 12th.

Frederick City, Md. (62 miles), is reached by a branch from the junction. It ranks as the third city in the State, and is the capital of Frederick County. It is well built, the houses being generally of brick or stone, and the streets are broad, straight, and laid out regularly. It contains a fine court-house, a number of handsome churches, and several educational institutions, among which *St. John's Roman Catholic College* is the most prominent.

From the Monocacy to the Point of Rocks, the road, having escaped from the narrow, winding valleys to which it has thus far been confined, bounds away over the beautiful campaign country lying between that river and the Catoctin Mountains.

This range of mountains, a continuation of the Blue Ridge, runs west of Frederick, due south, to the Point of Rocks. Between this range and the South Mountain, which slopes to the Potomac at Knoxville, nestles Maryland's loveliest valley, the valley of Catoctin, of which Middletown, 10 miles from Frederick, is the centre. A conspicuous elevation at the

termination of the Catoctin range is known as the *Sugar-loaf Mountain*.

Point of Rocks, Md. (69 miles). This station takes its name from a bold promontory, which is formed by the profile of the *Catoctin Mountain*, against the base of which the Potomac River runs on the Maryland side, the mountain towering up on the opposite (Virginia) shore forming the other barrier of the pass. The railroad here passes the point by a tunnel cut through the solid rock for 1,500 feet. Two miles beyond is another cliff, and more excavation and walling. Beyond, the ground becomes comparatively smooth, and the railroad, leaving the immediate margin of the river to the canal, runs along the base of the gently-sloping hills, passing the villages of Berlin and Knoxville, and reaching the Weverton Factories, in the pass to the South Mountain.

The *Battle of South Mountain* really commenced at a bridge over Catoctin Creek, half a mile west of Middletown, where Confederate artillery had been posted to dispute the passage. After most desperate fighting, the crest of the hill was gained by the Federal troops and the enemy driven into the valley on the west side of the mountain. *Turner's Gap*, where the last desperate stand of the Confederate right was made, is two miles from the base of the mountain. *Crampton's Gap*, through which passes the road from Jefferson to Roherville, is six miles south.

From *South Mountain* to *Harper's Ferry*, the road lies along the foot of a precipice for the greater part of the distance of three miles, the last of which is immediately under the rocky cliffs of Elk Mountain, forming the north side of this noted pass. The *Shenandoah River* enters the Potomac immediately below the bridge over the latter, and their united currents rush rapidly over the broad ledges of rock which stretch across their bed. The length of the bridge is about 900 feet, and at its western end it divides into two, the left-hand branch connecting with the *Winchester & Potomac Railway*, which passes directly up the Shenandoah, and the right-hand carrying the main road, by a strong curve in that direction, up the Potomac. The bridge consists of six arches of 130 and one arch of about 75

feet span over the river, and an arch of about 100 feet span over the canal; all of which are iron. This viaduct is remarkable for its length and for its peculiar structure, the two ends of it being curved in opposite directions, and bifurcated at the western extremity.

Two miles before reaching *Harper's Ferry* we come to *Hagerstown Junction*, where the *Washington County Division* of the road diverges. This division, connecting with the *Cumberland Valley Railway*, affords direct communication with *Harrisburg* and the North.

Harper's Ferry, W. Va. (81 miles), and all its fine points of scenery, are too well known to need elaborate description here. The precipitous mountains which rise from the water's edge leave little level ground on the river margin, and all of that was occupied by the United States Army buildings. Hence the Baltimore & Ohio Railroad has been obliged to build itself a road in the river-bed for upward of half a mile, along the outer boundary of the Government works, upon a trestle-work, resting, on the side next to the river, upon an insulated wall of masonry, and upon the other side supported by strong iron columns placed upon the retaining wall of the Army grounds.

The town is delightfully situated at the confluence of the *Potomac* and *Shenandoah Rivers*, in Jefferson County, Va., 160 miles north of Richmond and 53 miles northwest of Washington. It is compactly though irregularly built around the base of a hill.

Besides the Army, a National Arsenal was located there. Both buildings, with nearly 15,000 stand of arms, were destroyed by fire, April 18, 1861, on the approach of the Virginia State troops. Southern troops soon occupied the town and adjacent heights, and, by May 20th, the number of Confederate soldiers on the spot was estimated at 8,000. On the 14th the point was evacuated. Previous to the war it was a prosperous trading-place, and was known in the early days of Virginia as Shenandoah Falls. It was once "the garden spot of Virginia;" but war, though it has rendered it more interesting to the traveller, has, for the present at least, robbed it of its claim to the

former distinction. It was the scene of the exploits which in October, 1859, rendered the name of John Brown, of Ossawatimic-Kansas notoriety, still more notorious. *Charlestown*, the county-seat, where Brown and his followers were tried and executed, is seven miles distant, on the road to Winchester. Visitors to Harper's Ferry should not fail to see the Maryland Heights, Bolivar Heights, Loudon Heights, and the fortifications which have been erected on them. This was the theatre of one of Stonewall Jackson's most famous exploits, when Harper's Ferry was taken by the Confederates in September, 1862.

After passing the site of the uppermost of the Army buildings, the road runs along the outer bank of the *Chesapeake & Ohio Canal*, which brings the water of the river to the works, and soon crosses this canal by an iron bridge 150 feet span. Thence the road passes up the river on the inner side of the canal, and opposite the dam at its head, about one and three-quarters of a mile from the mouth of the Shenandoah, and pierces a projecting rock by a tunnel or gallery of 80 feet in length.

The view down the river through this perforation is singularly picturesque, presenting the pass through the mountain at the confluence of the rivers in one of its most remarkable aspects. A short distance above the tunnel, where the river sweeps gradually round to the eastward in the broad smooth sheet of water created by the dam, the railroad leaves the Potomac and passes up the ravine of *Elk Branch*, which presents itself at this point in a favorable direction. This ravine, at first narrow and serpentine, becomes wider and more direct, until it almost loses itself in the rolling table-land which characterizes the "Valley of Virginia." The head of *Elk Branch* is reached in about nine miles, and thence the line descends gradually over an undulating champaign country, to the crossing of the "Opequon" Creek, which it passes by an iron bridge of 150 feet span and 40 feet above the water surface. Beyond the crossing the road enters the open valley of *Tuscarora Creek*, which it crosses twice and follows to the town of Martinsburg.

At Harper's Ferry the *Winchester, Potomac & Strasburg Division*, which runs through the celebrated Shenandoah Valley, diverges.

Kearneysville, W. Va. (92 miles), was the scene of many cavalry fights between Generals Pleasanton, Averill, Custer, and Merritt, on the one side, and Fitz Lee and Stuart on the other. This part of the road, and indeed the whole region around Martinsburg, including that town itself, was occupied alternately at least fifteen times during the war, by the Federal and the Confederate soldiers, and battles were almost continually taking place in its vicinity.

From this point, by riding seven miles over the turnpike-road to *Sharpsburg, Md.*, where good conveyances can be had, the tourist can reach the celebrated battle-field of *Antietam*, the scene of one of the fiercest contests of the war. The battle was fought on the 17th of September, 1862, between the Union forces under General McClellan and the Confederates under General Lee. The latter was defeated and driven back across the Potomac, this battle closing the campaign for the year.

Although the battle of *Antietam* is spoken of, much of the fighting was done in the village of *Sharpsburg*, which is situated near the west bank of Antietam Creek, 14 miles south of Hagerstown. The town still bears many marks of the fight, the houses being perforated by shells, and defaced by Minié balls. The Lutheran and Episcopal Churches suffered so severely that they had to be pulled down. The principal object of interest, next to the battle-field itself, a fine view of which it commands, is the National Cemetery. The plan originated with Governor Bradford, was approved by the General Assembly of 1865, and the grounds located on the site they now occupy upon the summit of the most prominent hill of the range selected by Lee for his line of battle. The view is at once commanding and beautiful.

Martinsburg, W. Va. (100 miles), is in many respects an old-fashioned-looking place, and, except for its war record, of no great interest. It is the capital of Berkeley County, West Virginia, and is pleasantly situated on

Tuscarora Creek, a rapid stream, which affords fine manufacturing advantages. Here the traveller will find the scene of the most destructive labors of the Confederate troops. It was here, and near here, on the 23d June, 1861, that 87 locomotives and 400 freight-cars, belonging to the railroad company, were collected by the Confederate troops under Jackson's personal direction, and burned or destroyed.

At Martinsburg the *Tuscarora* is bridged twice, the crossing east of the town being made upon a viaduct of 10 spans of 44 feet each, of iron, supported by two abutments and 17 stone columns. The architectural effect of this structure is good.

During the war Martinsburg was sometimes in the hands of one of the contending parties, and sometimes in the hands of the other. The railway company at this point have built extensive shops, fine in architectural appearance, and furnished with all the modern mechanical appliances for the construction and repair of cars and engines.

North Mountain, W. Va. (107 miles), is where the road crosses the mountain by a long excavation 63 feet in depth, cut in the slate-rock, through a depression therein, passing out of the valley, having traversed its entire length upon a line 26 miles in length. On leaving these rich and well-tilled lands, we enter a poor and thinly-settled district, covered chiefly with a forest in which stunted pine prevails. There is a heavy excavation and embankment for four or five miles from the North Mountain. The trains cross Back Creek over a double-track iron bridge, 80 feet span, and 54 feet above the stream. The view of the Potomac Valley is magnificent as one approaches the bridge. It extends as far as the distant mountain-range of *Sideling Hill*, 25 miles to the west. The immediate margin of the river is reached at a point opposite the ruins of Fort Frederick, on the Maryland side. The fort was built more than a hundred years ago.

Reefing Creek, W. Va. (117 miles). The road crosses the stream of this name, by a viaduct of two spans of 110 feet each.

Sir John's Run, W. Va. (128

miles), was the scene of much warlike preparation and activity during the early days of the civil war. It is the point of departure for the *Berkeley Springs*, which are situated at the eastern base of the Warm Spring Ridge, two miles distant from the railway-station, and are much frequented by travellers. The hotel is elegantly fitted up, lighted by gas, and is well kept during the season. Coaches await the arrival of the trains.

Leaving *Sir John's Run*, the track sweeps around the termination of the Cacapon Mountain, opposite the remarkable and insulated eminence called the "Round Top." Thence on to the crossing of the Great Cacapon River, nine and a half miles above Hancock, which is crossed by a bridge about 300 feet in length. Within the next mile it passes dam No. 6 of the Chesapeake & Ohio Canal, and soon after it enters the gap of Siding Hill.

The next point of interest reached is the *Tunnel at Doe Gully*. The approaches are very imposing, as for several miles above and below the tunnel they cause the road to occupy a high level on the slopes of the river hills, and thus afford an extensive view of the grand mountain scenery around.

The *Paw Paw Ridge Tunnel* is next reached, 30 miles from Hancock, and 25 miles below Cumberland. The bore is through a soft slate-rock, and is curved horizontally with a radius of 750 feet.

The viaduct over *Little Cacapon Creek* is 143 feet long. About five and a half miles farther on, the south branch of the Potomac is crossed on a bridge 400 feet long.

Some two miles above is a fine straight line over the widely-expanded flats opposite the ancient settlement of Old Town, in Maryland. These are the finest bottom-lands on the Potomac, and from the upper end of them is obtained the first view of the *Knobly Mountain*, that remarkable range which lies in a line with the town of Cumberland, and is so singularly diversified by a profile which makes it appear like a succession of artificial mounds. *Dan's Mountain* towers over it, forming a fine background to the view. Soon after, the route passes the high cliffs known as *Kelly's Rocks*, where there has been a very heavy excavation.

Patterson's Creek, W. Va. (170 miles), is at the mouth of the stream from which it takes its name.

Immediately below this stream is a high precipice of limestone and sandstone rock, singularly perforated in some of the ledges by openings which look like Gothic loopholes. The valley of this creek is very straight and bordered by beautiful flats. The viaduct over the stream is 150 feet long. Less than two miles above, and six miles from Cumberland, the north branch of the Potomac is crossed by a viaduct 700 feet long, and rising in a succession of steps—embracing also a crossing of the *Chesapeake & Ohio Canal*. This extensive bridge carries us out of Virginia, and lands us once more in Maryland, which we left at Harper's Ferry.

The route thence to Cumberland is across two bends of the river, between which the stream of *Evelt's Creek* is crossed by a viaduct of 100 feet span.

Cumberland, Md. (178 miles), is in the mountain-region of the narrow strip which forms the western part of the State, and in point of population and trade is its second city.

It is the eastern terminus of the Great National Road leading to the Mississippi, and is also the western terminus of the *Chesapeake & Ohio Canal*. In the vicinity are fine beds of coal. Cumberland has a court-house, county jail, several banks, some handsome churches and a good hotel.

The company has built at this point one of the most extensive steel-rail mills in the country, for the purpose of manufacturing its own rails.

The entrance to the town is beautiful, and displays the noble amphitheatre in which it lies to great advantage, the gap of *Will's Mountain*, westward of the town, being a prominent feature of the view.

The brick and stone viaduct over *Will's Creek* deserves particular notice. It consists of 14 elliptical arches of 50 feet span and 13 feet rise, and is a well-built and very handsome structure.

From Cumberland to Piedmont, 28 miles, the scenery is remarkably picturesque, perhaps more so than along any other section of the road of similar length. For the first 22 miles, to the mouth of New Creek, the Knobly

Mountain bounds the valleys of the North Branch of the Potomac on the left, and Will's and Dan's Mountains on the right; thence to Piedmont, the river lies in the gap which it has cut through the latter mountain.

Chimney-Hole Rock, at the termination of Fort Hill, is a singular crag, through the base of which the railroad company has driven a tunnel under the road to answer the purpose of a bridge for several streams entering the river at that point.

The curious cliffs which are passed during the first 10 miles after leaving Cumberland; the wide bottom-lands extending for the next four miles; the high rocky bluffs along Fort Hill, and the grand precipice opposite to them on the Virginia shore, immediately below the "*Black Oak Bottom*," a celebrated farm embracing 500 acres in a single plain, between mountains of great height, are all objects worthy of the notice of the tourist.

The crossing of the Potomac, from the Maryland to the Virginia shore, is 21 miles from Cumberland, where the railroad, after passing through a long and deep excavation, spans the river by a bridge of iron, on stone abutments and a pier. The view at this point, both up and down the river, is very fine. The *Bull's Head Rock*, a mile beyond this bridge, is a prominent object.

Piedmont, W. Va. (206 miles). Here the traveller reaches, as the name implies, the foot of the *Alleghany Mountains*. This is the end of the second Division of the road, and here are located a hotel and extensive machine-shops. The village stands at the mouth of *George Creek*, and opposite is the ancient village of Westenport. The *Cumberland & Pennsylvania Railway* connects here.

We now commence the ascent of the Alleghanies. Passing up the valley of Savage River, through the Everett Tunnel, past the mouth of Crabtree Creek, where, in military parlance, the road turns the flank of the Great Backbone Mountain, we reach Altamont, in Alleghany County.

Altamont, Md. (223 miles), is 2,700 feet above the city of Baltimore, and upon the extreme summit of the Alleghanies. It is here that the mountain-

streams divide, flowing in one direction toward the Ohio River, the Mississippi, and the Gulf of Mexico, and in the other toward the Potomac River, the Chesapeake Bay, and the Atlantic Ocean.

From Altamont westward, for a distance of nearly twenty miles, are beautiful natural meadows lying along the upper waters of the *Youghiogheny* (Yo-ho-gance) River, and its numerous tributaries, divided by ridges generally of moderate elevation and gentle slope, with fine ranges of mountains in the background. These meadows are known as the "Glades."

Oakland, Md. (232 miles), is a place of resort with tourists. It has a good hotel.

The *Great* and *Little Youghiogheny*, close by, are famous troutng streams, and the glades and oak-clad hills in the neighborhood abound with game.

The crossing of the great Youghiogheny River is by a viaduct of iron—a single arch of 180 feet span resting on stone abutments. The site of this fine structure is wild, the river running here in a woody gorge.

A few miles beyond Oakland, the boundary-line between Maryland and West Virginia is crossed.

Cranberry Summit, W. Va. (242 miles). From this point magnificent views to the west are to be had. The descent of 11 miles to Cheat River presents a rapid succession of very heavy excavations and embankments. At one point the road, after skirting a beautiful glade, enters a wild-looking pass through a deep forest of hemlocks and laurel-thickets, the stream dashing over large rocks and washing the side of the road but a few feet below its level. These are known as the *Falls of Snowy Creek*. There are also two tunnels, viz., the *McGuire Tunnel* of 500, and the *Rodemer Tunnel* of 400 feet in length, secured by the most durable arches of stone and brick. There is also a stone and iron viaduct over *Salt Lick Creek* 50 feet span and 50 feet high. The creek passes through a dense forest of fir-trees in its approach to the river.

Cheat River is a dark, rapid mountain-stream, whose waters are of a curious coffee-colored hue, owing, it is said, to its rising in forests of laurel and black spruce on the highest mountain

levels of that country. This stream is crossed by a viaduct consisting of two arches, 180 and 130 feet span, of timber and iron, on stone abutments and a pier.

The name of this river well describes its character, which is treacherous in the extreme. The mountains on either side are not sufficiently covered with soil to absorb the rain, and consequently during a heavy mountain-shower the river rises very rapidly. When the rain ceases the flood subsides as rapidly as it has risen. It thus often happens that what in the morning seems to be only a little stream, a few hours later looks like a great river.

We next ascend the *Cheat River Hill* and pass along a part of the line to open which the greatest natural obstructions had to be met. The difficulties encountered in the four miles west of the crossing of the river would seem to be insuperable. The road, winding up the slope of *Laurel Hill* and its spurs, with the river on the right hand, first crosses the ravine of *Kyer's Run*, 76 feet deep, by a solid embankment; then, after passing through a bold cutting, and along a steep, rocky hill-side, it reaches *Buckeye Hollow*, the depth of which is 108 feet below the road-level, and 400 feet across at that level. Then there is more side cutting in the rock, and the passage of two or three coves in the hill-side, when we come to *Tray Run*, and cross it, 150 feet above its original bed, by an iron trestle-work of light and graceful construction, 600 feet long at the road-level.

For several miles on this part of the line, the road runs along the steep mountain-side, presenting a succession of landscapes. In favorable weather, day trains stop ten minutes to allow travellers an opportunity to view the viaduct and scenery of this part of the line.

After passing these two tremendous clefts in the mountain-side, the road winds along a precipitous slope with heavy cutting, filling, and walling, to *Buckhorn Branch*, a wide and deep cove on the western flank of the mountain. This is crossed by a solid embankment and retaining wall 90 feet high at its most elevated point. Some half mile farther, after more heavy cuts and fills, the road leaves the declivity of the river, which,

where we see it for the last time, lies 500 feet below us, and turns westward through a low gap, which admits it by a pretty deep cutting, followed soon by a deeper and longer one through *Cassidy's Summit Ridge* to the table-land of the country bordering Cheat River on the west. Here, 80 miles from Cumberland, we enter the great western coal-fields, having passed out of the Cumberland field 35 miles from that place.

Descending from *Cassidy's Ridge*, and passing by a high embankment over the *Bushy Fork of Pringle's Run*, the line soon reaches the *Kingwood Tunnel*, the longest finished tunnel in America. This is 4,100 feet long. It was constructed by Benjamin H. Latrobe. It took five years to complete it, costing \$1,000,000.

Newburg, W. Va. (266 miles). From Kingwood Tunnel to this point the line descends a steep hill-side for five miles until it reaches the flats of *Raccoon Creek*, upon which the village is situated. In this distance it lies high above the valley, and crosses a branch of it with an embankment 100 feet high. There are two other heavy fills farther on. Two miles west of Kingwood Tunnel is *Murray's Tunnel*, 250 feet long, a regular and beautiful semicircular arch cut out of a fine solid sandstone rock, overlying a vein of coal six feet thick, which is seen on the floor of the tunnel.

From Newburg, westward, the route pursues the valleys of Raccoon and Three Forks Creeks, which present no features of difficulty, to the Grafton Station.

Grafton, W. Va. (279 miles), is where the *Parkersburg Division* diverges. It is pleasantly situated on the *Tygart's Valley River*, which is crossed at this point by a handsome iron bridge. Here terminates the third or mountain division of the line. Grafton has a good hotel and dining-saloon.

Fetterman, W. Va. (281 miles), a promising village, is next reached. Here the turnpike to Marietta and Parkersburg crosses the river. The route from Fetterman to Fairmont has but one very striking feature: the *Tygart's Valley River*, whose margin it follows, is a beautiful and winding stream, of gentle current, except at the *Falls*, where the river descends, principally by three or

four vertical pitches, some 70 feet in about a mile. The view in fine weather is charming. A mile and a half above Fairmont the Tygart's Valley River and the West Fork River unite to form the *Monongahela*, the first being the larger of the two confluent.

A quarter of a mile below their junction, the railroad crosses the *Monongahela*, upon a viaduct 650 feet long and 39 feet above low-water surface. The lofty and massive abutments of this bridge support an iron superstructure of three arches of 200 feet span each. It was five times destroyed and rebuilt during the war.

Fairmont, W. Va. (302 miles), the capital of Marion County, is at the head of navigation on the *Monongahela River*, which is here spanned by a fine suspension bridge 1,000 feet in length, connecting Fairmont with the village of Palatine. A mile and a half below Fairmont the road leaves the valley of the *Monongahela*, and ascends the winding and picturesque ravine of *Buffalo Creek*, a stream some 25 miles in length. The creek is first crossed five miles west of Fairmont, again at two points a short distance apart, and again about nine miles farther west.

Mannington, W. Va. (319 miles), is situated at the mouth of *Pile's Fork* of the *Buffalo*. There is a beautiful flat here on both sides of the stream, offering a site for a fair-sized town. It is surrounded by picturesque hills. Thence to the head of *Pile's Fork*, the road traverses at first a narrow and serpentine gorge, with five bridges at different points, after which it courses with more gentle curvatures along a wider and rather winding valley, with meadow-land of one or two hundred yards breadth on the one or the other margin. Numerous tributaries open out pretty vistas on either hand. This part of the valley, in its summer dress, is singularly beautiful. After reaching its head at *Glover's Gap*, 23 miles beyond Fairmont, the road passes the ridge by deep cuts, and a tunnel of 350 feet long, of curious shape, forming a sort of Moorish arch in its roof. From this summit (which divides the waters of the *Monongahela* from those of the Ohio) the line descends by *Church's Fork* of *Fish Creek*—a valley of the same general

features with the one just passed on the eastern side of the ridge.

The road now becomes winding, and in the next four miles we cross the creek eight times. We also pass *Cole's Tunnel*, 112 feet, *Eaton's Tunnel*, 170 feet, and *Marten's Tunnel*, 180 feet long.

Littleton, W. Va. (332 miles), is a small village. Just beyond it is *Board Tree Tunnel*, which is 40 miles east of Wheeling. It passes under a great hill, originally crossed by the railroad on a zigzag track with seven angles representing seven V's.

Leaving *Board Tree Tunnel*, the line descends along the hill-side of the *North Fork of Fish Creek*, crossing ravines and spurs by deep fillings and cuttings, and reaching the level of the flats bordering the Creek at Bell's Mill; soon after which it crosses the creek and ascends *Hart's Run* and *Four-Mile Run* to the *Welling Tunnel*, 50 miles west of Fairmont, and 28 from Wheeling. This tunnel is 1,250 feet long, and pierces the ridge between *Fish Creek* and *Grave Creek*. It is through slate-rock, like the *Board Tree Tunnel*, and is substantially arched with brick and stone.

From the *Welling Tunnel* the line follows the valley of *Grave Creek*, 17 miles to its mouth at the Flats of *Grave Creek* on the Ohio River, 11 miles below Wheeling. The first five miles of the ravine are of gentle curvature and open aspect, like the others already mentioned. Afterward it becomes very sinuous, and the stream has to be bridged eight times. There are also several deep cuts through sharp ridges in the bends of the creek, and one tunnel 400 feet long at *Sheppard's*, 19 miles from Wheeling.

Moundsville, W. Va. (368 miles), is one of the two villages at the point where *Big* and *Little Grave Creeks* enter the *Ohio River*, the other being *Elizabethtown*. The approach to the Ohio at this point is very beautiful. The line, emerging from the defile of *Grave Creek*, passes straight over the "flats" which border the river, and forming a vast rolling plain, in the middle of which looms up the "great Indian mound," 80 feet high and 200 feet broad at its base. It is between the two villages. The "flats" embrace an area of some 4,000 acres,

about three-fourths of which lies on the Virginia, and the remaining fourth on the Ohio side of the river. The soil is fertile and well cultivated.

About three miles up the river from Moundsville, the "flats" terminate, and the road passes for a mile along rocky narrows washed by the river, after which it runs over wide, rich, and beautiful bottom-lands, all the way to Wheeling.

Benwood, W. Va. (375 miles), is the last station in West Virginia, and here connections are made by ferry with the *Central Ohio Division*.

Bellair, O. (376 miles), is the first station on this line in the State.

Belmont, O. (394 miles), is in the midst of a well-watered, fertile, and hilly country. There are rich coal-mines in the vicinity.

Cambridge, O. (423 miles), is the capital of Guernsey County, and contains the county buildings. Coal is found in abundance in the vicinity.

Zanesville, O. (454 miles), the capital of Muskingum County, is a thriving and beautiful city on the left bank of the *Muskingum River*, which flows through a fertile and productive country, and is navigable to this point. The city is regularly laid out, the streets are wide, well-shaded and adorned by many handsome buildings. The river affords a fine water-power, and, as there are extensive coal-fields in the neighborhood, Zanesville has great advantages as a manufacturing place. It is supplied with water from the river, the distribution being effected through pipes from a reservoir which holds 2,000,000 gallons. Besides the usual public schools, there is here a free school richly endowed by John McIntyre, one of the early settlers of the place. The railroad bridge across the river is of iron. It is 538 feet long. The *Cincinnati & Muskingum Valley Railway* connects here. Population, 10,011.

Newark, O. (480 miles), connects with *Lake Erie Division* and with *Pittsburg, Cincinnati & St. Louis Railway*. (See page 26.)

The other stations, as far as Cincinnati, have already been described. (See pages 26 to 41.)

ROUTE XI.

BALTIMORE TO ST. LOUIS.

Via Baltimore & Ohio, Marietta & Cincinnati, and Ohio & Mississippi Railways.
(Time, 44 hrs.—Fare, \$24.)

As far as Grafton, 279 miles from Baltimore on the main line, this route has been fully described in ROUTE X. At Grafton the traveller takes the Parkersburg Division, upon which are the following

STATIONS:—Grafton, 279 miles from Baltimore; Webster, 283; Simpson's, 287; Flemington, 289; Bridgeport, 296; Clarksburg, 301; Wilsonburg, 305; Cherry Camp, 313; Salem, 315; Long Run, 320; Smithton, 325; West Union, 329; Central, 331; Pennsboro', 341; Ellenboro', 346; Cornwallis, 351; Cairo, 354; Petroleum, 361; L. F. Junction, 363; Eaton's, 364; Walker's, 368; Kanawha, 373; Claysville, 376; Parkersburg (connects with Marietta & Cincinnati Railway), 383.

Grafton, W. Va. (279 miles). (See page 68.) From Grafton to the Ohio River the road passes through a well-wooded country, rich in coal and petroleum. Aside from this, it is very rough and unproductive, and without interest to the tourist. For the most part, the villages are small and unimportant.

Clarksburg, W. Va. (301 miles), the first station of any consequence, is the capital of Harrison County. It is situated on a high table-land on the west bank of the *Monongahela River*, and is surrounded by hills. There are valuable mines of bituminous coal in the vicinity.

Petroleum, W. Va. (361 miles), is the centre of the rich oil-regions of West Virginia.

Claysville, W. Va. (376 miles), is situated on the *Little Kanawha River*. It has a fine water-power, and several mills.

Parkersburg, W. Va. (383 miles), the capital of Wood County, is situated upon the Ohio River at the mouth of the *Little Kanawha*. It is a pleasant place and is neatly built. Petroleum is abundant in the vicinity.

On January 9, 1871, a bridge across the Ohio to Belpré was opened to the public.

The first stone was laid in July, 1869, and the whole structure completed on January 7, 1871. It is said that no work of similar magnitude has ever been constructed in this country in such a brief period. Some idea of the labor and expense incurred in bridging the river at this point may be formed from the following statistics: The total length is one mile and 1,762 feet; the two main channel spans are each 350 feet, and are 90 feet above low-water mark; there are four river spans, 210 feet in length. In addition, on the Ohio side, there are five spans of 120 feet each; two of 126 feet, and two "approach" spans of 55 feet; while on the Virginia side, there are eight spans of 100 feet; twelve of 59 feet; three of 62 feet, and eleven smaller ones averaging from 25 to 30 feet.

The bridge is approached on the Ohio side by an embankment more than a mile long, in the formation of which every precaution has been taken to guard against the occurrence of slides or washing, to which work of this character is more or less subject. The total cost of this bridge and approaches exceeds a million dollars.

MARIETTA & CINCINNATI RAILWAY STATIONS.—Belpré, 384 miles from Baltimore; Scott's Landing, 393; Vincent's, 403; Cutter, 410; New England, 419; Warren's, 423; Athens, 429; Marshfield, 436; Zaleski, 449; Hamden (Junction of Portsmouth Branch), 460; Raysville, 471; Londonderry, 478; Schooley's, 483; Chillicothe (crosses Ohio Canal), 490; Frankfort, 503; Greenfield, 514; Monroe, 520; Lexington, 526; Vienna, 531; Martinsville, 538; Blanchester (Hillsborough Branch diverges), 547; Spence's, 557; Loveland (connects with Little Miami Railway), 563; Montgomery, 568; Madisonville, 574; Cincinnati, Hamilton & Dayton Junction, 581; Cincinnati, 589.

Belpré, O. (384 miles), on the *Ohio River*, the first station in Ohio, is only a small place.

Athens, O. (429 miles), the capital of Athens County, is pleasantly situated upon the Hocking River. The *Ohio University*, founded in 1804, the oldest college in the State, is located here, as also is one of the *State Lunatic Asylums*. The *Hocking Valley Railway* affords direct

railway communication with Columbus. In the neighborhood are several Indian mounds similar to the one at Moundsville.

Hamden, O. (460 miles), is the junction of the branch road to Portsmouth on the Ohio, at the mouth of the *Scioto River*.

Chillicothe, O. (490 miles), is the capital of Ross County, and is beautifully situated on the east bank of the *Scioto River*, in the midst of a very fertile and productive region. It has a large trade, being the commercial centre of this section of the State, and has the advantage, not only of railway connections, but also of being upon the *Ohio & Erie Canal*.

The city is built upon a plateau, through which flows the beautiful *Scioto*, and is surrounded by high hills. It is regularly laid out with broad, pleasant streets, and has many handsome buildings, embracing churches, school-houses, and a stone court-house which cost over \$100,000.

Chillicothe is a very old place, having been founded in 1796. It was from 1800 to 1810 the capital of the State. Afterward the seat of government was removed to Zanesville, and subsequently to Columbus. Chillicothe does not owe all its prosperity to its commercial importance, but, being the seat of several manufactories, and being within easy access of the coal and iron regions of Ohio, by means of the *Marietta & Cincinnati Railway*, it is a good place for the investment of capital.

Frankfort, O. (503 miles), is a growing village, situated in a rich and populous farming region.

Greenfield, O. (514 miles), has an active trade, the country in the vicinity being rich and highly cultivated; in fact, one travelling through this part of the State cannot but be struck with the beauty of the villages, the fertility of the land, and the high state of cultivation to which it has been brought.

Lexington, O. (526 miles), on the Clear Fork of *Mohican River*, is a flourishing milling village.

Blanchester, O. (547 miles), is the point where the road branches to Hillsborough, a distance of 21 miles.

Loveland, O. (563 miles), is the crossing of the *Little Miami Railway*.

Cincinnati, O. (589 miles). (See page 31.) From Cincinnati to St. Louis the road has already been described. (See page 59.)

St. Louis, Mo. (By this Route 973 miles from Baltimore.) (See page 16.)

ROUTE XII.

NEW YORK TO OMAHA, NEBRASKA.

Via Chicago & Northwestern Railway. (Time, 54 hrs.—Fare, \$42.)

STATIONS.—Chicago—Harlem, 9 miles from Chicago; Cottage Hill, 16; Wheaton, 25; Junction, 30; Geneva, 36; Blackberry, 44; Lodi, 51; Cortland, 55; DeKalb, 58; Malta, 64; Creston, 70; Rochelle, 75; Ashton, 84; Franklin, 88; Dixon (connects with Main Line of Illinois Central Railway), 98; Sterling (connects with Rockford, Rock Island & St. Louis Railway), 110; Morrison, 124; Fulton, 136; Clinton, 138; Camanche, 143; Low Moor, 148; Malone, 152; De Witt, 157; Calamus, 169; Wheatland, 173; Loudon, 178; Clarence, 185; Stanwood, 190; Lisbon, 202; Bertram, 210; Cedar Rapids (connects with Dubuque Southwestern, and Burlington, Cedar Rapids & Minnesota Railways), 219; Fairfax, 228; Blairstown, 244; Belle Plains, 254; Tama, 270; Legrand, 280; Marshall (connects with Central Railway of Iowa), 289; State Centre, 303; Nevada, 318; Boone, 340; Beaver, 357; Grand Junction (connects with Des Moines Valley Railway), 364; New Jefferson, 370; Glidden, 388; Carroll, 396; West Side, 409; Denison, 424; Dunlap, 441; Missouri Valley Junction (connects with Sioux City & Pacific Railway), 467; Crescent, 482; Council Bluffs, 488; Missouri Railway (crosses on bridge to Omaha, there connecting with Union Pacific Railway), 491.

From New York to Chicago take either of the three Routes first named in this book.

Chicago, Ill. (See page 6.)

From Chicago to Omaha this line of road passes through a country which, with the exception of a few inhabited points along the navigable rivers, twenty years ago, was one vast prairie traversed only

by the Indian, the trapper, and the wild game which then abounded, but which is now fast disappearing before the onward march of civilization. Many of the villages and cities along the road are thriving and attractive, but are as yet too young to possess the public conveniences and advantages one looks for in places of more gradual development. There are some, however, whose rapid growth has already placed them on an equality with their older sisters of the Eastern States. With the rapid increase of the lines of railway, and the consequent settlement of the rich land thrown open to market, the landscape loses much of its distinctive character; and, though the peculiar nature of the country now level as a floor, and now rolling like the waves of the ocean, still remains, it is no longer a treeless, boundless expanse of waving grass and variegated flowers. Orchards have been planted, groves of forest-trees are springing from the prairie, and the view in many places reminds one of the garden regions of the Eastern States.

Junction, Ill. (30 miles), is the point of divergence of the *Galena Division* of this road.

Geneva, Ill. (36 miles), is a prosperous place, situated on the Fox River, which furnishes a fine water-power. It is the capital of Kane County, and has many business advantages.

Dixon, Ill. (98 miles), the capital of Lee County, is at the junction of the main line of the *Illinois Central Railway*. It is situated on *Rock River*, which, being dammed at this point, furnishes a fine water-power for the mills, that are one of the sources of the prosperity of the place. A United States land-office is located at Dixon. From Dixon to Sterling the road runs parallel to and north of *Rock River*, which a short distance beyond the latter point diverges to the south.

Sterling, Ill. (110 miles), is beautifully situated on the north bank of *Rock River*, which here, naturally affording a fine water-power, has been improved by a stone dam supplying several mills, founderies, and machine-shops. This is an important point for the shipment of grain and produce, and is the junction of the

Rockford, Rock Island & St. Louis Railway.

Fulton, Ill. (136 miles), the last station in the State, stands upon the eastern bank of the Mississippi River, which is here crossed by a splendid bridge. It is built of iron, is 4,100 feet long, and cost \$600,000. The draw is 300 feet long. It revolves on its own centre, uncovering two spans of 120 feet each, through which passes the main channel of the river. It is worked by a steam-engine of 25 horse-power, perched on a framework elevated over the track sufficiently high to permit the cars to pass beneath it. The Illinois end of the bridge passes over a flat, or bottom, then crosses a shallow channel to an island, which, being thickly covered with trees, and at the time of high water usually submerged, presents a picturesque appearance, as the woods, without any apparent support, seem to float in an erect position on the surface of the stream. After crossing the island the main channel of the river is reached, spanned by the large draw just described. From this draw, looking up the river, there is a fine view taking in three towns. On the Illinois bank, some two miles above the bridge, stands Fulton, its huge elevator being one of the most prominent objects seen. Directly opposite, on the Iowa side, is Lyons, and at the western end of the bridge stands Clinton.

Clinton, Io. (138 miles), is pleasantly situated on the west bank of the Mississippi. It contains the locomotive repair-shops of this division of the road, and is one of the stations for the change of engines on through-trains. It is the site of a large number of saw-mills, and is one of the leading lumbering-places on the river. One of the saw-mills here has facilities for sawing 200,000 feet of lumber a day. It is well worth visiting.

Camanche, Io. (143 miles), is a small village which was the scene of one of those terrible tornadoes which sometimes sweep away an entire town on these Western prairies. The storm to which reference is here made was one of exceptional violence, and played more curious and apparently incredible freaks than are usual even among these eccentric

breezes—among the most wonderful of which is, that a horse was taken up, carried across the Mississippi, and landed unhurt, nearly three miles from home! This is vouched for as being absolutely true by residents of the place, but seems rather exaggerated.

From Clinton to Cedar Rapids the road passes through a rolling prairie, dotted with a succession of young and thriving towns, and is relieved from monotony by numerous groups of trees, the whole appearing like an immense farm in some old country where a small quantity of timber has been judiciously allowed to remain; indeed, it seems sometimes impossible to realize that never in the memory of man, or even in the traditions of the Indians, have trees been known upon these grassy knolls.

Cedar Rapids, Io. (219 miles), on the *Red Cedar River*, is already a place of importance, and is destined to become a flourishing city. The *Dubuque, Southwestern*, and the *Burlington, Cedar Rapids & Minnesota Railways* connect here, making it a railway centre. Other roads to this point are now constructing.

Marshall, Io. (289 miles). Connections are made with the *Central Railway of Iowa*.

Boone, Io. (340 miles), was founded in 1865, and even now (1871) is an important and rapidly-growing place. Its inhabitants have two characteristics necessary to the building up of a large town—a commendable degree of enterprise, and an idea that the State of Iowa contains no other town besides that of Boone. The country round about it is fertile and productive.

The whole country is here underlaid by coal, and at this point much of the coal used upon the Iowa Division of the Chicago & Northwestern Railway is procured.

Steadily journeying westward from Boone, the tourist passes through the valley of the *Des Moines*. The country is well wooded and rugged, being more like that of the Eastern States than any of the route between Chicago and the *Missouri River*.

The approaches on either side of the river are of the wildest character, and demand the heaviest grading from the

railroad which crosses it. In some sections the grade of the track is not less than 80 feet to the mile, while the lowest degree of inclination marks an ascent of 53 feet in the same distance. It is not unlike, in many respects, the wild, grand scenery which has made famous the Delaware Division of the Erie road, save that, in place of the broad river at the foot of the hills, there are swift-running mountain streams in the wet season, and dry gulches in a time of drought. In this section coal of excellent quality abounds, and upon either side of the road are to be seen the works over the shafts and the begrimed faces of the miners who delve day after day beneath the surface. The Des Moines River is spanned by a fine bridge which bears the train in safety over the stream at a dizzy height above the water below.

For many miles after leaving the valley the road passes over a superb prairie, which, except for the villages which have sprung up around the few stations since 1866, remains in its primitive condition.

Tip-Top, Io. (405 miles), is the highest point in the State, being 870 feet above the level of *Lake Michigan*. In spring and summer the surrounding prairie is rich in long grass, and beautiful flowers; but in the winter snow-drifts 20 feet in depth are not uncommon. At this point two streams take their rise from springs. The one, *Storm Creek*, flows to the east, its waters eventually finding their way to the Mississippi. The other, the *Boyer*, runs to the west, and empties into the Missouri, not far from Council Bluffs.

Denison, Io. (424 miles), is a promising young town.

At this point we enter upon the Boyer Valley, which varies from two to four miles in width, and is a flat bottom between two rows of hills. The scenery of this valley, in contrast to that of the prairie, is very pleasing.

Dunlap, Io. (441 miles), is a growing town. The company has an engine-house here, and there is a fair hotel.

Missouri Valley Junction (467 miles) is the junction of the Sioux City & Pacific Railway.

The descent into the Missouri Valley commences here, and we have a full view of the "bluffs" for the first time. The road, taking a southwesterly course, almost skirts those on the Iowa side, while those of Nebraska loom up on the opposite side of the broad river-bottom.

Council Bluffs, Io. (488 miles), is the capital of Pottawattomic County, Iowa, and is situated in the Missouri Bottom, at the foot of the bluffs, which here are high and very precipitous. The river seems to vibrate between the bluffs, eating the earth away from the one side and depositing it on the other, so that this city, which was, when first settled, upon the river's edge, is now some three miles away from it. This gives it plenty of room to extend its limits, and it is probable that, however it may increase in population, there will always be room for manufactories, jobbing-houses and similar establishments, while upon the bluffs, at no distant day, will be clustered the residences, elegant churches, pleasure-grounds, and other accessories, of the home portion of a large city. The views from these bluffs are very beautiful. In 1804 Clark and Lewis held a council here with the Indians, and gave it its name. The streets cross each other at right angles, one set running from the river to the bluffs, which stay their farther progress in that direction. There is an expensive *Court-House* at this place, and the *State Institute for the Deaf and Dumb*, now building, will be an ornament to the city. The great bridge across the Missouri at this point being finished, Council Bluffs and Omaha are practically one city, though at present there is fierce rivalry between the two.

The following railways now centre at Council Bluffs, connecting by bridge with the Pacific Railway at Omaha: *Chicago & Northwestern*; *Chicago, Rock Island & Pacific*; *Burlington & Missouri River*; and *Kansas City, St. Joseph & Council Bluffs*.

ROUTE XIII.**NEW YORK TO OMAHA.**

Via any Route to Chicago, thence by Chicago, Rock Island & Pacific Railway. (Time, 59 hrs.—Fare, \$42.)

STATIONS.—Chicago—Englewood, 7 miles from Chicago; Blue Island, 16; Bremen, 24; Mokena, 30; Joliet (connects with Chicago & Alton Railway, and Joliet Branch of Michigan Central Railway), 40; Minooka, 51; Morris, 61; Seneca, 71; Marseilles, 76; Ottawa, 84; Utica, 94; La Salle (connects with Illinois Central Railway, and steamer to St. Louis), 99; Peru, 100; Bureau (connects with Branch to Peoria), 114; Tiskilwa, 122; Pond Creek (connects with Chicago, Burlington & Quincy Railway), 128; Sheffield, 136; Atkinson, 152; Geneseo, 159; Colona, 170; Moline, 179; Rock Island (connects with Western Union Railway, and bridge over the Mississippi River, connecting Illinois with Iowa Division; also with steamers on the Mississippi River), 182; Davenport, 183; Walcott, 195; Fulton, 199; Wilton (connects with Branch for Muscatine, Washington, etc.), 208; Moscow, 211; Atalissa, 216; West Liberty, 221; Iowa City, 237; Oxford, 252; Homestead, 257; Marengo (connects with stage for Blairs-town), 267; Victor, 279; Brooklyn, 287; Malcolm, 293; Grinnell, 302; Kellogg, 313; Newton, 322; Colfax, 334; Mitchellville, 340; Des Moines (connects with Des Moines Valley Railway), 357; Boone, 372; De Soto (connects with stage lines), 379; Dexter (connects with stage lines), 392; Casey, 408; Anita, 422; Atlantic, 436; Avoca, 455; Shelby, 463; Neola, 474; Council Bluffs (connects with Union Pacific Railway, and with steamers on the Missouri River), 490; Missouri River, 493.

Chicago, Ill. (See page 6.)

From *Chicago to Joliet*, the road passes over a portion of the rich prairie-lands of Illinois. The villages along the line are prosperous little places, deriving their support from the neighboring farms, but possess no general interest. The scenery is monotonous, and since the settlement of the country has lost the distinctive prairie character which is now only seen to perfection in the western

part of Iowa, and on the plains west of the Missouri.

Joliet, Ill. (40 miles), is the county-seat of Will County, and is one of the principal places in the State. The population in 1870 was 7,266. The city is situated on the *Des Moines River*, which affords a good water-power, and is connected with Chicago by canal as well as by railway. It is handsomely built, many of the buildings being of a good quality of gray limestone. The State penitentiary here is one of the finest in the United States. Here, also, is one of the most extensive stone quarries of the Northwest, of gray limestone in layers varying from two inches to two or three feet in thickness, and of which some of the finest commercial and public buildings of Chicago were built, including that vast structure the Chicago, Rock Island & Pacific, and Michigan Southern Railway Depot, at Chicago; the superstructure of the Illinois State Capitol (now building), the extensive U. S. Armory and Arsenal buildings on Rock Island, and many other imposing edifices through the Northwest. Thousands of men are employed in these quarries every summer.

Joliet is a very prosperous place, and is the commercial centre of the surrounding country. It also has some importance as a milling and manufacturing place. The *Chicago & Alton Railway* and the *Joliet Branch of the Michigan Central Railway* connect here.

Morris, Ill. (61 miles), is a thriving post-village, on the *Illinois & Michigan Canal*. It is the capital and principal shipping-point of Grundy County. Morris has a bank, several churches, and a newspaper office. Population in 1865, about 4,000; in 1870, about 6,000.

Ottawa, Ill. (84 miles), the capital of La Salle County, is a flourishing city, situated on both sides of the *Illinois River*, just below the mouth of *Fox River*. The *Illinois & Michigan Canal* connects it with Chicago. Ottawa contains several churches, banks, and a number of large public school-houses. The city is lighted with gas. There are eight large steam elevators here. The *Fox River*, at this place, has a fall of about 29 feet, producing an extensive water-power. Among the

manufactories are one large corn-starch mill, four manufactories of reapers, and four flouring-mills. Rich beds of coal are found in the vicinity. The Supreme Court for the north division of the State is held here. Population in 1865, about 6,547; in 1870, 7,752.

La Salle (99 miles) is a very flourishing manufacturing town on the Illinois River, at the terminus of the Illinois Canal, 100 miles long, which connects it with Chicago. It is the centre of extensive coal-mines in the vicinity. It connects with the *Illinois Central Railway* and steamer to St. Louis. Population about 7,000.

Bureau, Ill. (114 miles), is a post-village at the junction of the *Peoria Branch Railway*.

Pond Creek, Ill. (128 miles), is the intersection of the *Chicago, Burlington & Quincy Railway*.

Geneseo, Ill. (159 miles), the largest place in Henry County, is situated in the heart of one of the most thrifty and best agricultural districts in the State. It has a population of about 3,000.

Moline, Ill. (179 miles), is on the east bank of the *Mississippi River*, three miles above Rock Island, with which it is connected by a horse-railway. Here is the most extensive water-power in the Northwest. Moline was first settled in 1832, by Joel Wells. It is situated at the head of the island of Rock Island, and divided therefrom by what is known as the "Slough," a swift-running stream that cuts off Rock Island from the main-land of the Illinois shore. The fall is about eight feet. Its improvement was commenced in 1841, and carried on by different interests until 1863, when it was bought by the U. S. Government, and permanent improvement commenced. It is expected that it will be finished this year, when it will equal about 7,500 horse-power. The pools within its walls, dikes, and shore-lines, have a capacity of 100,000,000 cubic feet of water, which is nearly equal to the combined water-power of all New England. Its manufactories are quite extensive, among them being two of the largest steel plough and cultivator factories in the United States. There are also an extensive paper-mill, woollen-factory, tub and bucket factory, wagon-factories, found-

ries, machine-shops, flour-mills, etc. Moline is surrounded by the most delightful scenery on all sides. Population in 1870, 5,763.

Rock Island City, Ill. (182 miles), the capital of Rock Island County, is on the *Mississippi River*, 2 miles above the mouth of Rock River. It is situated at the foot of the *Upper Rapids*, which extend nearly 15 miles, and in low stages of water obstruct the passage of loaded vessels. The place derives its name from an island 3 miles in length, the south extremity of which is nearly opposite the town. The main and navigable channel is on the west side of the island, while that on the east has been dammed at Moline, so as to produce the immense water-power already alluded to, and a good harbor below. It has 10 churches, and a large union school-house; but it is remarkable for its flourishing manufactures, among which are a paper-mill and a plough-factory. Stoves, carpets, and glass, are also manufactured here, and there is a large distillery. The population in 1870 was 7,899.

The Island of Rock Island, lying between Rock Island and Moline on the east, and Davenport on the west, is the largest of the *Mississippi River* islands. It is 3 miles long, and contains 960 acres of excellent soil on a solid foundation of limestone above the encroachment of the highest water, and is about equally divided into timber and cleared land. It was settled in 1816 by 800 U. S. troops under Colonel William Lawrence, who there established *Fort Armstrong*. At the lower point, where now stands the new *U. S. Arsenal*, were the headquarters of Generals Scott, Taylor, and Gaines, during the Black Hawk War. For many years it was under the control of Colonel Davenport, who brought the first white women to this country in 1816. Fort Armstrong was evacuated in 1836, peace having been insured.

The island is the property of the United States, and was the great Confederate prison during the late civil war; as many as 12,000 prisoners being confined there at a time.

In 1863 Brigadier-General Rodman (of Rodman-gun fame) took charge, and commenced the extensive Government

improvements, and the building of the great central armories of the United States. These buildings, ten in number, have been commenced; two of them are nearly completed. They are in the central part of the island, and built in the shape of a C, each 220 feet front, by 300 feet deep, three stories high, of Joliet stone and wrought-iron. There are 7,000 cubic yards of stone masonry, 1,000,000 brick for ceiling arches, 7,500 tons of wrought-iron, 51,500 squares of slate, and 165,600 feet of oak flooring to each building, the cost of each being about \$600,000.

Here are magnificent headquarters, costing \$100,000, twenty miles of splendid roadways, running in every direction; drives, walks, promenades, and paths; indeed the most delightful scenery, rushing waters, delightful shade, and magnificent prospects from every point of view. It is the great Central Park of the Northwest. It is approached at the upper end by an elegant wrought-iron carriage-bridge, leading over from Moline, and from Rock Island by a similar structure, both built by the Government. From the Davenport side a massive iron railway, carriage, and foot bridge is being thrown across the main channel, a short distance below the present wooden bridge, connecting with the extreme lower end of the island, which is very abrupt, rising in a lime-stone ledge, from 15 to 21 feet above water.

In the face of this ledge is *Black Hawk's Cave*, a high aperture extending some distance back under the island. Old Fort Armstrong, built in 1816, on this rocky point, has entirely passed away, and in its place rises a magnificent cut-stone armory, 180 by 160 feet, with a massive tower, having an area of 33 by 33 feet, and rising 135 feet, surmounted by a bell and a clock, the huge face, hands, and figures of which are distinctly visible in both Davenport and Rock Island.

Davenport, Io. (183 miles), a flourishing city, the capital of Scott County, is the metropolis of the State. Its population in 1860 was 11,267; and in 1870, 23,560. The city is finely located on the *Mississippi River*, at the foot of the *Upper Rapids*, 330 miles above St. Louis. It is built at the foot, along the

slope, and upon the top of a gently-rising bluff, extending along the river a distance of $3\frac{1}{2}$ miles. It was formerly connected with the island and city of Rock Island by a substantial railroad bridge, now replaced by the new Government railroad, carriage, and foot bridge, of wrought-iron on massive Joliet-stone piers, very handsomely built. This bridge was completed in 1871, at a cost of \$1,000,000, equally divided between the U. S. Government and the Chicago, Rock Island & Pacific Railway.

The city has 5 miles of street-railway; an immense water-power, that steps are being taken to improve; and is the great grain depot of the Upper Mississippi. Here are numerous extensive jobbing-houses, manufactories of machinery, woollens, lumber, and agricultural machinery, furniture, etc.

About the city and its suburbs the tourist will find pleasant drives, and from lookout points along the bluffs are some of the most magnificent views of river, bluff-land and prairie scenery, embracing in one grand sweep the island, the city of Rock Island, the villages of Moline, Milan, and the encircling amphitheatre of bluffs—the magnificent river stretching out miles and miles away on either hand.

Davenport has 25 church edifices, and large and substantial school buildings. There are here also *Griswold College*, *College of the Sisters of the Immaculate Conception*, and *Mercy Hospital*, and here is the finest opera-house in the West, outside of Chicago.

Davenport was settled in 1835 by Antoine Le Claire, a half-breed interpreter of the Sac and Fox Indians, whose chief village was here. It is now one of the most prosperous of the Western cities, situated in the heart of extensive bituminous coal-fields, at the junction of railroads extending in every direction—the *Chicago, Rock Island & Pacific*, *Davenport & St. Paul*, *Chicago & Southwestern* lines on the west; and the *Chicago, Rock Island & Pacific*, *Rockford*, *Rock Island & St. Louis*, *Western Union*, *Peoria & Rock Island* on the east.

Its hotel accommodations are extensive, the Burts taking the lead. Round about are the villages of Le Claire, Buffalo,

Gilbert Town and Valley City—connected by picturesque drives.

Wilton, Io. (208 miles), is a pretty post-village of Muscatine County. A branch to *Muscatine*, a city of 6,750 inhabitants, 12 miles distant, on the Mississippi, thence to the southern boundary of the State, and soon to be extended to Leavenworth, Kansas, leaves the main line here.

West Liberty, Io. (221 miles), is a neat, thrifty post-village in Muscatine County. Here is the crossing of the *Burlington, Cedar Rapids & Minnesota Railway*, completed to the Northern part of the State.

Iowa City, Io. (237 miles), is quite a flourishing town, and is beautifully situated on the bluffs of the Iowa River. It was formerly the capital of the State, being selected as such in May, 1839, when it was entirely in a state of nature. Within a year from that time it contained from 500 to 700 inhabitants. The late census gives it a population of 7,500. The town is embowered among groves of trees, and surrounded by fertile farms. The streets, for the most part, are long and wide. At the intersection of Capital Street and Iowa Avenue, on a commanding eminence, stands the former capitol, a fine edifice of the Doric order, 120 feet long and 60 feet wide. This building has been transferred to the *State University*, which has about 500 pupils. The river is navigable by steamboats from its mouth to this place in high water, and affords excellent water-power. Iowa City has 12 churches, a paper-mill, machine-shops, a linseed-oil mill, flour-mills, etc. Population in 1870, 7,500.

Grinnell, Io. (302 miles), is a thriving post-village, and the seat of *Iowa College*. The North Iowa Central Railroad crosses the Chicago, Rock Island & Pacific at this point.

Newton, Io. (322 miles), is the capital of Jasper County. It has several fine buildings. Coal is found in large quantities in its vicinity.

Des Moines, Io. (357 miles), the capital of Iowa, is situated at the junction of the *Des Moines* and *Raccoon Rivers*. It contains 15 churches, a paper-mill, machine-shops, and founderies, an academy, five high-schools, a U. S. Court, a hand-

some post-office building, and many very fine private residences.

The foundation of a new \$2,000,000 State-House is being laid.

Extensive coal-mines are worked here, and wood is abundant. From its excellent location this is destined to be a large and thrifty city. Population in 1870, 12,380. The *Des Moines Valley Railway* connects here with *Keokuk* at the southeast corner of the State, and *Fort Dodge*, some fifty miles northward.

From Des Moines the road passes through a fine prairie country, dotted with pretty villages, until we reach the bluffs, and descend into the Missouri Bottom.

Council Bluffs, Io. (490 miles), has been described in ROUTE XII. (See page 74.)

ROUTE XIV.

CHICAGO TO OMAHA.

Via Chicago, Burlington & Quincy, and Burlington & Missouri River Railways. (Time, 23 hrs.—Fare, \$19 75.

STATIONS. — *Chicago, Burlington & Quincy Railway.*—Chicago—River Side, 12 miles from Chicago; Hinsdale, 18; Downer's Grove, 23; Naperville, 29; Aurora, 38; Bristol, 46; Plano, 53; Somanauk, 60; Leland, 66; Earl, 73; Mendota (connects with Illinois Central Railway), 84; Arlington, 92; Malden, 99; Princeton, 105; Chicago, Rock Island & Pacific Junction (connects with Chicago, Rock Island & Pacific Railway), 113; Buda (connects with Buda & Rushville Branch), 117; Neponset, 124; Kewanee, 132; Galva (connects with Galva & New Boston Branch), 140; Altona, 147; Oneida, 151; Wataga, 156; Galesburg (diverges from main line), 163; Cameron, 172; Monmouth, 179; Young America, 185; Sagetown, 197; Burlington (connects with Burlington & Missouri Valley Railway, and with Branches to Keokuk and Carthage), 207.

STATIONS. — *Burlington & Missouri River Railway.* — Burlington, 207 miles from Chicago; Mount Pleasant, 235; Glendale, 249; Fairfield, 257; Whittfield, 262; Ottumwa (connects with Des Moines Valley & North Missouri Railway), 285;

Albia, 307; Melrose, 321; Chariton, 337; Osceola, 363; Afton, 337; Creston, 397; Corning, 418; Red Oak (connects with Red Oak Branch for East Nebraska City), 443; Glenwood, 478; Pacific Junction (connects with Plattsburgh & Lincoln Branch), 482; Council Bluffs, 493; Missouri River, 503; Omaha (connects with Union Pacific Railway), 504.

The Chicago, Burlington & Quincy Railway passes through some of the best farming-land in the State of Illinois, crossing it diagonally from Chicago on Lake Michigan to East Burlington, Illinois, where connection is made by ferry with the railways divergent from Burlington. Of the cities and villages along the line the general remark can be made that they are prosperous, well provided with churches and schools, and are neatly and tastefully built. It is not necessary to mention them all, and only a few, which for exceptional reasons require especial notice, will be described.

Chicago, Ill., has been described in ROUTE I. (See p. 6.)

Napierville, Ill. (29 miles), the capital of Du Page County, is upon the *Du Page River*, which furnishes a good water-power.

Aurora, Ill. (33 miles), is a city of over 10,000 inhabitants, situated upon *Fox River*, which furnishes the power for numerous important manufactories. It contains a handsome City-Hall, and many fine stores and dwellings. The construction and repair-shops of the railway, situated here, give employment to about 700 men.

Mendota, Ill. (84 miles), is a place of rapid growth, the first house having been built in 1853, the population now being about 6,000. It is surrounded by a rich farming region, and coal being abundant and cheap, manufactures are numerous and varied. This is the seat of *Mendota College*, and of a *Wesleyan Seminary*. Some of the churches are handsome edifices. The *Illinois Central Railway* connects here.

Princeton, Ill. (105 miles), is upon a beautiful prairie, and is the capital of Bureau County. Eight miles beyond is the crossing of the *Chicago, Rock Island & Pacific Railway*.

Buda, Ill. (117 miles), is the point

where the *Buda & Rushville Branch* diverges. This branch is 110 miles long, and is only of local importance. The following are the names of the stations: Bradford, Wyoming, Brimfield, Elmwood, Yates City, Norris, Bryant, Lewiston, Vermont, Rushville.

Galva, Ill. (140 miles), is where the *Galva & New Boston Branch* diverges. This branch is 51 miles in length, and *New Boston*, the terminus, is a place of much business activity, situated upon the *Mississippi River*. The following are the names of the stations: Woodhull, New Windsor, Viola, Aledo, Joy, New Boston.

Galesburg, Ill. (163 miles), is a flourishing city, with a rapidly-growing trade. It is noted for its educational advantages, being the seat of Knox College and of Lombard College, and has a female seminary and several public schools. It is surrounded by a rich farming country. The road branches here, the main line or *Quincy Division* continuing toward the southwest, while westward-bound passengers turn toward Burlington. The *Galesburg & Peoria Branch*, 53 miles long, diverges here. The following are the names of the stations: Gilson, Maquon, Summit, Yates City, Elmwood, Oak Hill, Edwards, Kickapoo, Peoria.

Monmouth, Ill. (179 miles), the capital of Warren County, is a prosperous place, and is situated on a rich and beautiful prairie. It contains a college.

East Burlington, Ill. (206 miles), the last station in Illinois, is upon the *Mississippi River*, opposite Burlington, Iowa, which is reached by ferry.

Burlington, Io. (207 miles), the capital of Des Moines County, excepting Davenport and Dubuque, is the largest city in the State, and a place of great commercial importance. The business portion of the city is built upon the low ground along the river, while the residences upon the high bluffs command extended views of the fine river scenery. The river at this point is a broad, deep, and beautiful stream of clear water, and upon the bluffs between which it passes are large orchards and vineyards.

The city is regularly laid out and well built, the houses being chiefly of brick. It contains *Burlington University* (a

Baptist institution), a public library, and many handsome churches. It is connected with all the river-ports by regular lines of steamers. The business of the city is large. The following railway lines centre here: *Chicago, Burlington & Quincy*, which has just been described; *Carthage Branch of Chicago, Burlington & Quincy*, which runs south on the Illinois side of the river for 57 miles, and has the following stations: Lomax, Colusa, Ferris, Carthage, Basco, West Point, Stillwell, Mendon; *Burlington & Keokuk Branch of Chicago, Burlington & Quincy*, running south 43 miles on the Iowa side, and having the following stations: Wever, Fort Madison, Painter Creek, Nashville, Sandusky, Keokuk; and *Burlington & Missouri Railway*.

Taking the cars of the *Burlington & Missouri River Railway*, the tourist may prepare himself for a pleasant ride of about 14 hours across the rolling prairie-lands of the State, continually though imperceptibly rising, until at *Creston* he finds himself on the dividing ridge between the Mississippi and the Missouri, 800 feet above their level.

Mount Pleasant, Io. (235 miles), the capital of Henry County, stands upon an elevated prairie, surrounded on all sides but the east by *Big Creek*, which is here bent like a horseshoe. It contains *Whittier College*, the *Wesleyan University*, and several good schools. About a mile to the south of the railway, and in full view from the cars, is the *Iowa Hospital for the Insane*. The country in the vicinity is highly productive, and the soil easily cultivated.

Fairfield, Io. (257 miles), the capital of Jefferson County, is situated on *Big Cedar Creek*, and is one of the most important towns in the interior of the State. There are in this place a United States land-office, a female seminary, and a college established by the State. The surrounding country is rolling prairie, diversified with forests of hard wood, and is well watered.

Ottumwa, Io. (285 miles), is the capital of Wapello County, and is the largest town on this line between the Mississippi and the Missouri. For several years it was the terminus of the road. It has a good water-power from the *Des*

Moines River, and is surrounded by coal timber, and building-stone. The *Des Moines Valley Railway* connects here.

Albia, Io. (307 miles), is the capital of Monroe County. It is surrounded by a rich farming district of alternating prairies and woodlands.

Chariton, Io. (337 miles), is the capital of Lucas County, and is situated upon *Chariton River*.

Osceola, Io. (363 miles), is the capital of Clarke County. It is situated on the dividing ridge between *White Breast* and *Squaw Creeks*. The railway now building from Des Moines to Kansas City will connect here.

Creston, Io. (397 miles), is upon the dividing ridge between the Mississippi and Missouri Rivers. The engine-houses and car-repair shops of this division of the road are located here.

Red Oak, Io. (448 miles), is the capital of Montgomery County. The *Red Oak Branch* for *East Nebraska City* diverges here.

Glenwood, Io. (478 miles), is the capital of Mills County, and is four miles east of *Pacific Junction*, where the *Plattsmouth & Lincoln Branch*, now completed as far as *Lincoln, Neb.*, diverges, crossing the *Missouri River* by ferry at *Plattsmouth*.

Council Bluffs, Io. (493 miles), described in ROUTE XII. (See page 74.)

Omaha, Neb. (504 miles), described in ROUTE XVIII. (See page 95.)

ROUTE XV.

NEW YORK TO OMAHA VIA LOGANS-PORT, PEORIA, AND KEOKUK.

Via Route II. to Toledo; Route XII. to Logansport; and Pittsburg, Cincinnati & St. Louis; Toledo, Peoria & Warsaw; Des Moines Valley and Iowa Division of Chicago, Rock Island & Pacific Railways. (Time, 58 hrs.—Fare, \$42.)

STATIONS.—Columbus, Chicago & Indiana Central Division of Pittsburg Cincinnati & St. Louis Railway.—Logansport, 906 miles from New York; Burnetville, 918; Reynolds (connects with Louisville, New Albany & Chicago Railway)—923; Remington, 937; State Line (connects with Toledo, Peoria & Warsaw Railway), 957.

STATIONS.—*Toledo, Peoria & Warsaw Railway.*—State Line, 957 miles from New York; Watseka, 968; Gilman (connects with Chicago Branch of Illinois Central Railway), 982; Chatsworth, 997; Chenoa (connects with Chicago & Alton Railway), 1,020; El Paso (connects with Illinois Central Railway), 1,035; Washington, 1,056; Peoria (connects with Peoria, Pekin & Jacksonville Railway), 1,068; Canton, 1,096; Bushnell (connects with Chicago, Burlington & Quincy Railway), 1,128; La Harpe, 1,152; Elvaston, 1,173; Warsaw (connects by ferry with Des Moines Valley Railway), 1,184.

STATIONS.—*Des Moines Valley Railway.*—Keokuk, 1,185 miles from New York; Sand Prairie, 1,199; Belfast, 1,204; Farmington, 1,215; Bonaparte, 1,220; Bentonsport, 1,223; Kilbourne, 1,232; Independent, 1,243; Ashland (connects with Branch of Chicago, Rock Island & Pacific Railway), 1,248; Ottumwa (connects with Burlington & Missouri River Railway), 1,260; Eddyville, 1,276; Oskaloosa, 1,284; Pella, 1,299; Otley, 1,308; Monroe, 1,313; Prairie City, 1,322; Woodville, 1,328; Des Moines (connects with Chicago, Rock Island & Pacific Railway), 1,346.

STATIONS.—*Chicago, Rock Island & Pacific Railway.*—Des Moines, 1,346 miles from New York; Boone, 1,361; De Soto, 1,368; Dexter, 1,381; Casey, 1,397; Adair, 1,404; Anita, 1,411; Atlantic, 1,425; Avoca, 1,444; Shelby, 1,452; Neola, 1,463; Council Bluffs, 1,479; Missonri River, 1,482; Omaha (connects with Union Pacific Railway), 1,483.

From the number of different corporations named in this list a traveller would almost be deterred from attempting the trip; but this would be a groundless anticipation of trouble, for changes of cars are by no means as frequent as it would appear, arrangements existing by which the cars of any one of these roads may be run over the tracks of the others.

Logansport, Ind. (906 miles). (See page 83.)

Reynolds, Ind. (923 miles), is the junction of the *Louisville, New Albany & Chicago Railway*.

State Line, Ind. (957 miles), is the junction of the *Toledo, Peoria & Wabash Railway*, the line of which we now follow.

Gilman, Ill. (982 miles), is the junction of the *Chicago Branch of the Illinois Central Railway*, and is a steadily-growing place.

Chenoa, Ill. (1,020 miles), is a small town at the intersection of the *Chicago & Alton Railway*.

El Paso, Ill. (1,035 miles), is a place of considerable importance, being the largest place between Peoria and the State line. It has a population of over 3,000 inhabitants, and contains eight churches, and schools, manufactories, stores, etc., equal to those of any town of its size in the State. The country in the neighborhood is being rapidly settled, the land being some of the richest in the State. The main line of the *Illinois Central Railway* connects here.

Peoria, Ill. (1,068 miles), is the capital of the county of the same name, and is one of the most important cities in the State. It stands upon the west bank of the *Illinois River* at the mouth of *Peoria Lake*, and has water communication both with Chicago and St. Louis, by means of river and canal. It is also an important railway point, and is the centre of an immense trade. The following description is not exaggerated:

"Peoria is the most beautiful place on the river. Situated on rising ground, a broad plateau extending back from the bluff, it is free from inundation at times of high water. The river here expands into a broad, deep lake, which is a most beautiful feature in the scenery of the town, and as useful as beautiful, supplying the inhabitants with ample stores of fish, and in winter with abundance of the purest ice. A substantial drawbridge connects the town with the opposite bank. The city is laid out in rectangular blocks, the streets being wide and well graded. The schools and churches are prosperous, and the society good. A public square has been reserved near the centre. Back of the town extends one of the finest rolling prairies in the State."

The *Peoria, Pekin & Jacksonville Railway* connects here.

Canton, Ill. (1,096 miles), is a pleasant village at the intersection of a branch of the *Chicago, Burlington & Quincy Railway*.

Bushnell, Ill. (1,128 miles), is

where the main line of the *Chicago, Burlington & Quincy Railway* connects.

Warsaw, Ill. (1,184 miles), is the western terminus of the *Toledo, Peoria & Wabash Railway*, and is a thriving place. It is on the eastern bank of the Mississippi, at the foot of the lower rapids, is pleasantly situated upon elevated ground, and has a large river-trade. It is connected by ferry with Keokuk, Iowa.

Keokuk, Io. (1,185 miles), is the eastern terminus of the *Des Moines Valley Railway*, and is the semi-capital of Lee County. It is situated on the west bank of the *Mississippi River*, which is here a mile wide. The lower rapids, at the foot of which the city stands, are 11 miles long, and in that distance the water falls 24 feet, affording a good water-power. This is the head of navigation for the very largest size of river-steamer, though large and elegant packets run as far as St. Paul, Minnesota. The city is well built and finely situated, standing upon a limestone formation which furnishes good building-material.

The Medical Department of the State University is situated here, and educational facilities of all kinds are good. The river flows between bluffs about 150 feet in height. In the centre is an island affording good facilities for constructing a bridge at this point.

The railway follows the course of the *Des Moines River*, which empties into the Mississippi 4 miles below Keokuk. The river flows through a fertile and undulating country, and the valley is in places very beautiful. Improvements are now in progress by which it is intended to make the river navigable as far as Des Moines.

Farmington, Io. (1,215 miles), is a thriving place, and the shipping-point for a rich farming district.

Ashland, Io. (1,248 miles). A Branch of the *Chicago, Rock Island & Pacific Railway*, running from Wilton, through Muscatine, Washington, etc., connects here.

Ottumwa, Io. (1,260 miles), connects with the *Burlington & Missouri River* and the *North Missouri Railways*. (For description, see ROUTE XIV., page 80.)

Oskaloosa, Io. (1,284 miles),

the capital of Mahaska County, has an elevated situation, and is surrounded by a fertile region. It was laid out in 1841, and has a settled and rapidly-increasing population.

Des Moines, Io. (1,346 miles), has been described in ROUTE XIII. (See page 78.)

From Des Moines to Omaha the journey is over the *Chicago, Rock Island & Pacific Railway*, which has been described in ROUTE XIII.

ROUTE XVI.

NEW YORK TO OMAHA.

Via Route II. to Toledo, Ohio, thence via *Toledo, Wabash, & Western, Hannibal & St. Joseph, and Kansas City, St. Joseph & Council Bluffs Railways*. (Time, — hrs.— Fare, \$42.)

STATIONS.—*Toledo, Wabash & Western Railway*.—Toledo; Maumee City, 9 miles; Whitehouse, 17; Washington, 26; Liberty, 30; Napoleon, 36; Oakland, 43; Defiance, 51; Emerald, 61; Antwerp, 72; Woodburn, 80; New Haven, 88; Fort Wayne (connects with *Pittsburg, Fort Wayne & Chicago Railway*), 94; Roanoke, 110; Huntington, 118; Antioch, 124; Lagro, 131; Wabash, 136; Kellers, 141; Peru (connects with *Indianapolis, Peru & Chicago Railway*), 150; Waverly, 158; Logansport (connects with *Columbus, Chicago & Indiana Central Railway*), 166; Clymers, 171; Rockfield, 180; Delphi, 187; Buck Creek, 193; Lafayette (connects with *Indiana, Cincinnati & Lafayette Railway*, and with *Louisville, New Albany & Chicago Railway*), 203; Wea, 210; West Point, 212; Attica, 224; Williamsport, 227; Marshfield, 236; State Line, 243; Danville (connects with *Indianapolis, Bloomington & Western Railway*), 250; Catlin, 256; Fairmount, 263; Homer, 270; Sidney, 276; Tolono (connects with *Chicago Division of Illinois Central Railway*), 286; Bement, 303; Cerro Gordo, 312; Sangamon, 319; Decatur (connects with *Main Line of Illinois Central Railway*), 324; Niantic, 335; Illiopolis, 339; Mechanicsburg, 348; Dawson, 351; Howlett, 355; Springfield (connects with *Chicago & Alton Railway*), 362; Chicago & Alton Junction, 364; Curran, 371; Berlin, 379;

Island Grove, 381; Alexander, 386; Orleans, 388; Jacksonville (connects with Jacksonville Division Chicago & Alton Railway), 396; Chapin, 406; Morgan, 408; Neely's, 411; Bluffs, 414; Naples, 418; Griggsville, 428; Pittsfield Junction, 432; New Salem, 435; Barry, 446; East Hannibal, 463; Hannibal (connects with Hannibal & St. Joseph Railway), 464.

STATIONS.—*Hannibal & St. Joseph Railway.*—Hannibal, 464 miles from Toledo; Barkley, 474; Palmyra Junction (connects with branch to Quincy, where connections are made with Chicago, Burlington & Quincy, and Toledo, Wabash & Western Railways), 479; Monroe, 494; Hunnewelle, 501; Shelbyville (connects with stages to Paris and Shelbyville), 511; Clarence, 523; Carbon, 531; Macon (connects with North Missouri Railway for St. Louis), 534; Bevier, 539; Callao, 543; New Cambria, 550; Bucklin, 558; St. Catherine, 564; Brookfield, 568; Laclede (connects with stage for Brunswick, Linnens, etc.), 573; Meadville, 579; Wheeling, 584; Chillicothe (connects with stage for Trenton, Princeton, etc.), 593; Utica, 598; Breckenridge, 608; Hamilton (connects with stages for Richmond and Lexington), 619; Kidder, 626; Cameron, 634; Cameron Junction (connects with Cameron & Kansas City Branch, for Turney, Lathrop, Holt, Kearney, Robertson, Liberty, Arnold, Harlem, and Kansas City), 635; Osborn, 640; Stewartsville, 648; Easton, 657; St. Joseph (connects with Missouri Valley Railway for Atchison and Leavenworth; with Kansas City, St. Joseph & Council Bluffs Railway for Council Bluffs and Omaha, there connecting with Union Pacific Railway for California), 662.

STATIONS.—*Kansas City, St. Joseph & Council Bluffs Railway.*—Nodaway, 676 miles from Toledo; Forest City, 691; Bigelow, 701; Corning, 714; Phelps, 727; Hamburg (connects with Red Oak Branch of the Burlington & Missouri River Railway), 741; East Nebraska City, 752; Bartlett, 767; Pacific Junction (connects with Burlington & Missouri River Railway), 775; Council Bluffs (connects with all diverging railways and with steamers on Missouri River), 792; Omaha, 796.

Toledo, O. (715 miles from New York). (See page 19.)

Maumee City, O. (9 miles), is at the head of actual steamboat navigation on the *Maumee River*.

Napoleon, O. (36 miles), the capital of Henry County, is a village upon the left bank of the *Maumee River*, and upon the *Wabash & Erie Canal*.

Defiance, O. (51 miles), the capital of Defiance County, is upon the site of Fort Defiance, which was built by General Wayne in 1794. It is a prosperous place, at the junction of the *Auglaize* with the *Maumee River*, which latter stream is navigable for small steamers to this point at high water. Ordinarily it is not navigable for vessels of more than about 60 tons' burden.

Antwerp, O. (80 miles), is the last station in Ohio.

Fort Wayne, Ind. (94 miles), connects with *Pittsburg, Fort Wayne & Chicago Railway*. (See page 24.)

Huntington, Ind. (118 miles), the capital of Huntington County, is a prosperous place, in the midst of a very fertile country. It is situated on Little River and on the *Wabash & Erie Canal*, within one mile of the *Forks of the Wabash*, upon the site of an Indian village, once the residence of La Fountain, a chief of the Miami tribe. It is a great centre for lime and building-stone, and is remarkable for its numerous mill-sites and great water-power.

Elagro, Ind. (131 miles), is on the *Wabash River* opposite the mouth of the *Salamonie*.

Wabash, Ind. (136 miles), the capital of Wabash County, is situated upon the river and canal of the same name.

Peru, Ind. (150 miles), the capital of Miami County, promises to be an important place. Within the past few years it has increased rapidly in population. (The Howe Sewing-Machine Company has lately established a Western branch of its company here.) The *Indianapolis, Peru & Chicago Railway* connects at Peru.

Logansport, Ind. (166 miles). The *Columbus, Chicago & Indiana Central Railway* connects here. (See page 28.)

Delphi, Ind. (187 miles), the

capital of Carroll County, is upon the *Wabash River*, which furnishes a large water-power by means of a dam, which crosses the stream at this point. The surrounding country is fertile, and much of its products finds its way to market by the *Wabash & Erie Canal*, which passes through the town. Delphi has two large paper-mills, many fine buildings, a beautiful court-house, about 2,500 inhabitants, is beautifully situated, and is a thriving town.

Lafayette, Ind. (203 miles), the capital of Tippecanoe County, and one of the principal cities in the State, is pleasantly situated on high bottom-land, commanding a fine view of the *Wabash River*. It derives a large trade from the surrounding country, which is highly cultivated, and enters largely into manufactures, its railway connections and the *Erie & Wabash Canal* affording good facilities for the transportation of its products. The city is substantially built, and the streets are well paved with gravel or Nicolson pavement. This part of the State is noted for its numerous small prairies, and beautiful oak openings. The *Louisville, New Albany & Chicago*, and the *Indianapolis, Cincinnati & Lafayette Railways* connect here. The *Lafayette, Bloomington & Muncie Railway* is nearly completed, and will soon be ready for the trains.

Attica, Ind. (224 miles), on the *Wabash River*, is rapidly gaining in business and population, its prosperity dating from the completion of the *Wabash & Erie Canal*. There are some noble forests in this part of the State.

Williamsport, Ind. (227 miles), is on the right bank of the *Wabash River*, which is crossed by the railroad at this point. It is a thriving place, and the capital of Warren County.

Danville, Ill. (250 miles), the capital of Vermilion County, is situated on the *Vermilion River*, which furnishes a good water-power. Large coal-mines and an abundance of timber in the immediate vicinity afford it unusual advantages for becoming a prosperous manufacturing town. The *Indianapolis, Bloomington & Western Railway* connects here.

Tolono, Ill. (286 miles), is a

rapidly-growing village. The *Chicago Division* of the *Illinois Central Railway* connects here.

Decatur, Ill. (324 miles), a prosperous place, containing many handsome buildings, is situated in a fine agricultural region. It is the capital of Macon County. A large rolling-mill has recently been erected here. The *Main Line* of the *Illinois Central Railway* and the *Toledo, Wabash & Western Railway* connect at Decatur.

Springfield, Ill. (362 miles), the capital of the State, and the seat of justice of Sangamon County, is a large and handsome city on the edge of a beautiful prairie. It is regularly laid out, the streets are broad, and the houses well built. The city is on a direct line between Chicago & St. Louis, being 185 miles southwest of the former, and 95 northeast of the latter place. The State government was established here in 1840. The *New State Capitol*, which occupies a square near the centre of the city, is considered a model of architectural beauty. The *State Arsenal* is located here, and there are among other buildings a handsome *Court-House* and a *United States Court-House* and *Custom-House*, built at a cost of \$500,000. Population, 17,364.

The *Springfield High School* is a fine building, four stories high, the upper one having a hall seating 600 persons. There is also a theatre, and a commodious lecture and concert hall.

Springfield is not only the commercial centre of a fertile agricultural region, but also a manufacturing and milling place.

The extensive shops of the *Toledo, Wabash & Western Railway Company* are worth visiting.

Leland Hotel, kept by the well-known Leland brothers, is a capital house.

Approaching the city, the traveller sees on the right hand the reservoir of the *City Water Works*, the supply-pipe of which, when the pumping-machinery at the *Sangamon River*, four miles distant, is at work, appears like an immense fountain. It is a striking object, and, when the sun is shining on the falling water, is very beautiful. The extensive buildings of the *Springfield Watch Company* are to be located near this spot.

Two miles north of the city is *Ridge*

Cemetery, a picturesque and well-kept burying-ground, 72 acres in extent. At its southeastern extremity six acres are set apart for the use of the Lincoln Monument Association, and here, marking the last resting-place of the late President, there is a noble monument.

The following railways centre here: *Toledo, Wabash & Western, Chicago & Alton*, and the *Springfield & Illinois South-eastern*. The *Gilman, Clinton & Springfield* and the *Springfield & Northwestern* Railways were completed in the summer of 1871. The *Springfield & St. Louis Railway* is soon to be constructed.

Jacksonville, Ill. (396 miles), noted for its handsome public buildings and educational and charitable institutions, has thus been described by a tourist:

"It looks like a village made to order at the East, with neat houses—some wood, some brick—with gardens filled with flowers and shrubbery, with wide and cleanly streets adorned with shade-trees, with academies, churches, and a college, clustering about the village centre, while well-tilled farms stretch along the borders on every side."

The *State Asylum for the Deaf and Dumb*, the *State Asylum for the Blind*, and the *State Asylum for the Insane*, are all located here, each being about a mile from the centre of the town. They occupy, relatively, three sides of a quadrangle, of which the town is the centre. *Illinois College*, an institution of some repute, founded in 1830, stands on a commanding elevation. It has a good library. Besides the common schools, there are a Methodist Female and two other academies. The *Jackson Division* of the *Chicago & Alton Railway* and the *Peoria, Pekin & Jacksonville Railway* connect here. Population, 9,203.

Bluff City, Ill. (414 miles). The *Quincy Branch* diverges here.

Naples, Ill. (418 miles), is a prosperous village on the *Illinois River*, which the traveller crosses at this point. It has a large trade, shipping by steamboats great quantities of pork, grain, etc.

East Hannibal, Ill. (463 miles), the actual terminus of the road, is on the *Mississippi River*, opposite the city of Hannibal, Missouri, to which point travellers cross to take the cars of

the *Hannibal & St. Joseph Railway*. The railroad-bridge across the Mississippi, just finished at this point, is one of the great works of the present day. The length between the abutments is 1,580 feet. It is 18 feet wide in the clear, and is intended for both railway and highway travel. With the exception of the piers and flooring, the bridge is of wrought-iron throughout. The amount of material used is something enormous: 400,000 lineal feet of piling, 1,000,000 feet of timber and flooring, 10,000 tons of masonry, 10,000 tons rip-rap, 4,000 tons of concrete, and 1,350 tons of iron. The structure cost about \$500,000.

Hannibal, Mo. (464 miles), is a prosperous and fast-growing city on the right bank of the *Mississippi River*, 153 miles above St. Louis. There are flouring-mills, and tobacco and other manufacturing-works at this place. Coal and carboniferous limestone abound in the vicinity, and the surrounding country is very fertile.

Passengers for the West take the *Hannibal & St. Joseph Railway* here, and connections are also made with the various lines of river-steamers. A railroad from Hannibal to St. Louis is projected.

Palmyra, Mo. (479 miles), the capital of Marion County, is a flourishing place, pleasantly located about six miles west of the Mississippi River. The branch road connecting with the *Chicago, Burlington & Quincy* and the *Toledo, Wabash & Western Railways*, at Quincy, connects here.

Monroe, Mo. (494 miles), is a small village in Monroe County. Coal, limestone, and freestone, are found in the vicinity.

On the 11th of July, 1861, the depot and station-buildings were burned by the Confederate troops under the command of General Price. A detachment of Union troops was obliged to take shelter in a college on the northeast side of the town. They there maintained a gallant defence, under the command of Major Josiah Hunt, until they were relieved by the arrival of a party of troops under command of Captain Louis Souther. The assault and defence of this place was one

of the most severe of many affairs of the kind which occurred along the line of the *Hannibal & St. Joseph Railway*.

Shelbina, Mo. (511 miles). Stages for Paris, the capital of Monroe County, and Shelbyville, the capital of Shelby County, connect at this point.

Macon, Mo. (534 miles), is the crossing of the North Missouri Railway, now running from Ottumwa, Io., to St. Louis, Mo.

Brookfield, Mo. (568 miles), situated in a fertile prairie, was first settled in 1859, and, though one of the principal stations on the road, is as yet but a small village. The railway company has an engine-house and machine-shop here.

La Cledc, Mo. (573 miles), is the shipping-point of a large and fertile country. There is an abundance of coal in the vicinity. Stages for Brunswick on the *Western Division* of the *North Missouri Railway* connect here.

Chillicothe, Mo. (593 miles), the capital of Livingston County, is surrounded by a prairie. It is on the line of a projected railway from St. Louis to Council Bluffs, and to Des Moines, Io. Stages for Trenton, the capital of Grundy County, Princeton, the capital of Mercer County, and for other points, connect here.

Hamilton, Mo. (619 miles). Stages for Richmond on the *Western Division* of the *North Missouri Railway*, and Lexington on the *Missouri River*, connect at this place.

Cameron, Mo. (634 miles), is the junction of the *Cameron & Kansas City Branch*, which will eventually be extended to Des Moines, Io. A branch to Leavenworth is also to diverge from this point.

St. Joseph, Mo. (662 miles from Toledo, and by the route we have followed 1,377 from New York), is the chief city of Western Missouri, and is the capital of Buchanan County. It is situated on the east bank of the *Missouri River*, by water 496 miles above St. Louis. Even before the days of railroads it was one of the principal points of departure for Western-bound emigrants, and now is of much greater importance owing to the system of roads, completed and constructing, which centre here. It was laid out in

1843. The population is rapidly increasing. St. Joseph (or St. Joe, as it is generally called out West) does considerable manufacturing, and is the commercial centre of the adjacent country for many miles around. It contains some handsome buildings. The *Missouri Valley Railway* and the *Kansas City, St. Joseph & Council Bluffs Railway* connect here, and several others in various directions are rapidly being pushed to completion.

From St. Joseph to Council Bluffs the traveller passes up the Missouri Valley over the track of the *Kansas City, St. Joseph & Council Bluffs Railway*, but none of the stations are of enough importance to be mentioned.

Council Bluffs, Io. (792 miles). (See page 74.)

Omaha, Neb. (796 miles), will be described as the first station on the Union Pacific Railway. (See page 95.)

ROUTE XVII.

FROM ST. LOUIS TO DENVER AND CHEYENNE.

Via Pacific Railway of Missouri, Kansas Pacific & Denver Pacific Railways.

PACIFIC RAILWAY OF MISSOURI.

STATIONS.—St. Louis—Cheltenham, 5 miles from St. Louis; Laclede, 8; Webster, 10; Kirkwood, 13; Barrett's (connects with stages to Manchester), 16; Meramec, 19; St. Paul, 24; Glencoe, 26; Eureka, 30; Allenton, 32; Franklin (connects with South Pacific Railway), 37; Gray's Summit, 41; Labadie, 44; South Point, 52; Washington, 54; Miller's Landing, 67; Berger, 75; Hermann, 81; Gasconade, 88; Chamois, 100; St. Aubert, 105; Bonnot's Mill, 112; Osage, 117; Jefferson City (connects with steamboats for points on Missouri River), 125; Centretown, 140; California, 150; Moniteau, 156; Tipton (connects with Boonville Branch), 162; Syracuse, 168; Otterville, 175; Sedalia (connects with stages to Springfield), 188; Dresden, 195; Knobnoster, 207; Warrensburg (connects with stages to Lexington), 218; Holden, 232; Kingsville, 236; Pleasant Hill (connects with stages to Fort Scott), 248;

Lee's Summit, 259; Little Blue, 265; Independence, 272; Kansas City (connects with all railways centring here), 282; State Line (connects with Kansas Pacific Railway), 283; Wyandotte, 285.

KANSAS PACIFIC RAILWAY.

(For distance from St. Louis, add 283 miles to distance given below.)

STATIONS.—Wyandotte—West Kansas City (connects with the Hannibal & St. Joseph and North Missouri Railways for St. Louis and Chicago); State Line (connects with Missouri Pacific Railway for St. Louis and Chicago); Muncy, 8 miles from State Line; Secondine, 9; Edwardsville, 13; Tiblow, 16; Lenape, 22; Stranger, 27; Leavenworth & Lawrence Junction, 36; Lawrence (connects with Leavenworth, Lawrence & Galveston Railway), 38; Buck Creek, 45; Perryville, 51; Medina, 52; Grantville, 60; Topeka (connects with Atchison, Topeka & Santa Fé Railway), 67; Silver Lake, 77; Rossville, 83; St. Mary's, 90; Wamego, 103; St. George, 110; Manhattan, 118; Ogden, 129; Fort Riley, 135; Junction City (connects with Missouri, Kansas & Texas Railway), 138; Chapman's Creek, 150; Abilene, 162; Solomon, 171; Salina, 185; Brookville, 200; Fort Harker, 218; Ellsworth, 223; Bunker Hill, 252; Walker's, 274; Hays, 288; Ellis, 302; Ogalah, 312; Parksfort, 322; Coyote, 340; Grinnell, 364; Monument, 385; Sheridan, 405; Wallace, 420; Cheyenne Wells, 462; Kit Carson (connects with the Southern Overland Mail and Express Company's daily line of coaches for Fort Lyons, Pueblo, Trinidad, Los Vegas, Santa Fé, and all points in New Mexico and Arizona), 487; Hugo, 534; River Bend, 555; Agate, 572; Denver Pacific Junction, 636; Denver (connects with Denver Pacific Railway), 639.

DENVER PACIFIC RAILWAY.

(For distances from St. Louis, add 922 miles to distance given below.)

STATIONS.—Denver, 613 miles from State Line; Hughes, 630; Johnson, 645; Evans, 661; Greeley, 665; Pierce, 680; Carr, 699; Summit Siding, 709; Cheyenne (connects with Union Pacific Railway), 719.

St. Louis, Mo., is fully described in ROUTE VII.

Webster, Mo. (10 miles), a flourishing village of about 1,200 inhabitants, is the first settlement worth notice west of St. Louis, on the Missouri Pacific Railway. Its principal marketable product are grapes, of which it raises large quantities. Land in the neighborhood is worth about \$800 per acre.

Kirkwood, Mo. (13 miles), is a favorite country residence with St. Louis merchants, who have expended much money in beautifying their houses and grounds. The population is about 2,500. The country around is thickly settled. The price of improved land is from \$500 to \$1,500 per acre.

Pacific, Mo. (37 miles), formerly called Franklin, is a growing town. Here the *South Pacific Railway* branches off for Springfield and Southwestern Missouri, and is open for 300 miles. A fine quality of white sand is found here, and is shipped in large quantities to Pittsburg, for the manufacture of glass. The inhabitants are mostly Germans. The surrounding country is rocky and broken, and ill adapted to agriculture.

Washington, Mo. (54 miles), is a pretty place of 3,700 inhabitants, on the *Missouri River*. It contains eight churches and the same number of public schools. Almost every man here owns his own house and lot.

Hermann, Mo. (81 miles), the capital of Gasconade County, is situated on the southern bank of the *Missouri River*. It was settled in 1838, under the auspices of the German Settlement Society of Philadelphia. Grapes are extensively cultivated, and in 1870 upward of 500,000 gallons of wine, of good quality, were manufactured. Land within a circuit of six miles is valued at from \$25 to \$75 per acre.

Gasconade, a flag-station, seven miles west, has been rendered historical through a terrible accident that occurred there on the opening of the road to Jefferson City. The passenger-train was the first on the road, and among the excursionists were many prominent residents of St. Louis. As the cars were crossing the new bridge over the *Gasconade River*, the timbers gave way, pre-

capitating the engine and all but one car into the water, a distance of over 50 feet.

Jefferson City, Mo. (125 miles), is the capital of the State of Missouri and of Cole County. It is beautifully situated on high bluffs, and commands a fine view of the river for miles above and below the city. During the session of the State Legislature its streets present an animated appearance. It has a population of about 7,000 inhabitants. The *Capitol* is a fine structure, of limestone, erected in 1836. The *State Penitentiary* is large and well built. The city is laid out at right angles, and has some handsome business blocks and residences. Coal is found in abundance in the neighborhood, which is well settled and cultivated. Most of the new settlers are Germans.

California, Mo. (150 miles), is the capital of Moniteau County, and one of the oldest towns along the railway line. It was laid out in 1845, and christened Boonsborough. Two years later it changed this for its present name. The population is about 2,500. The settlers are mostly of Teutonic extraction. The town suffered greatly during the late war, at the time of Price's raid the Confederates destroying the depot and other buildings. The new Court-House, erected in 1868, cost \$52,000. The country around California is good, but sparsely settled.

Tipton, Mo. (162 miles), is a small place, surrounded by a thickly-settled farming district. The *Boonville Branch of the Pacific Railway* starts from here, and runs to the Missouri River, a distance of 28 miles. Farm-land in the neighborhood of Tipton is worth about \$35 per acre.

Sedalia, Mo. (183 miles), is now the most important point of business on the railroad between St. Louis and Kansas City. The town, which is built on a beautiful rolling prairie, is laid out at right angles, and has a prosperous appearance. It is very near the centre of Pettis County, of which it is the capital. The population is about 6,000. The first house was built in 1860. The following year, the railroad reached Sedalia, which was its terminus for three years. During the war a military post was established, from which troops and supplies were forwarded to the West and Southwest.

The town is lighted by gas, has a handsome opera-house, and many first-class improvements. Sedalia is the end of the *Eastern Division of the Pacific road*. The *Tibo and Neosho Railway* is now completed from this place to Fort Scott, Kansas. The Missouri, Kansas & Texas Railway commences at Sedalia, and extends to Houston and Galveston.

Knobnoster, Mo. (207 miles), is a small but well-improved place. It is named after the beautiful mound upon which it is built, and from which can be seen villages and farms for many miles around. There are large coal-mines in the neighborhood. Land is worth about \$35 per acre.

Warrensburg, Mo. (217 miles), is a flourishing place of 4,000 inhabitants, and is the capital of Johnson County. It is 35 years old, but was almost without life until the railroad was constructed; since then the whole county has increased in population over 300 per cent. Warrensburg is a large wheat-depot, and has a steam-elevator of great capacity. No county in Missouri is better adapted for the raising of cereals than Johnson. Land is worth from \$15 to \$40 per acre.

Holden, Mo. (232 miles), was located on the line of the Pacific road in 1838; but during the war all the principal buildings were destroyed. In the summer of 1865 it was resurveyed, and has grown to be one of the liveliest points along the road. It has now a population of about 3,000, and a large trade. It is surrounded by fine prairie farm-lands.

Pleasant Hill, Mo. (248 miles), is beautifully situated in the extreme northeast corner of Cass County, on an eminence that commands a good view of the rich farm-lands around. It is made up of three parts, old town, middle town, and new town. It is noted for its churches, of which it has seven, although the population is only about 3,000. Harrisonville, the capital of the county, lies 12 miles south.

Lee's Summit, Mo. (259 miles), is a thriving town in one of the richest parts of Jackson County. Land in the neighborhood is worth from \$40 to \$70 per acre.

Independence, Mo. (272 miles), is the capital of Jackson County,

and one of the most beautiful and picturesque places in the State. It was first settled in 1827, and for many years was an outfitting point for the New-Mexican and Indian trade. During the war, it was twice taken by the Confederates. The population is about 3,500. Independence was once settled by the Mormons, who called it the seat of the New Jerusalem. F. T. Aubrey landed here after his celebrated John Gilpin ride from Santa Fé, New Mexico. The surrounding country is fast becoming settled, and is dotted all over with handsome dwellings.

Kansas City, Mo. (282 miles), is the most important commercial point along the *Kansas Pacific Railroad*, and is the second city in the State. It is situated on the southern bank of the *Missouri River*, just below the mouth of the *Kaw River*, and adjoining the boundary-line of Kansas and Missouri. Despite its almost interminable hills and hollows, it has many natural advantages, and for nearly a hundred miles is surrounded by rich farming lands which are being rapidly settled and improved. Its geographical position is very favorable, and, with its railroads, increasing trade, and other advantages, makes it one of the most prosperous and promising cities of the West.

Kansas City was laid out in 1830; its growth was slow until 1856, when it began to improve rapidly. In 1860 the population was 4,418, and in 1870 it was 32,296. At the breaking out of the war it was about 7,000; but, for the four years following, the growth of the city was stayed, its avenues of trade blockaded, and its commerce almost crushed out.

With peace came prosperity, however, and its advance since 1865 has been a marvel to all. Kansas City has the honor of having built the first bridge across the Missouri, which it did at a cost of \$1,000,000. This bridge, which has seven piers, four of them resting on the rocky bed of the river, is 1,387 feet long.

Kansas City is the terminus of eight railways: the *Missouri Pacific*, running to St. Louis; the *Missouri River Railway*, running to Atchison; the *West Branch of the North Missouri*, running to Moberly;

the *Missouri River, Fort Scott & Gulf Railway*, running to Baxter's Springs; the *Kansas City, St. Joseph & Council Bluffs Road*, running to Council Bluffs; the *Kansas Pacific*, running to Denver; the *Kansas City & Cameron Road*, running to Cameron; and the *Kansas City & Santa Fé Railway*, now completed as far as Coffeyville, Franklin County, Kansas; making in all nearly 3,000 miles of railway terminating at this point. The roads now building are the *Kansas City & Memphis* and *Louisiana & Missouri River*, and two or three others are projected.

The following is a condensed exhibit of the business for 1870: Bank deposits, \$65,125,250; exchange sold, \$30,000,000; number of buildings erected, 1,100, at a cost of \$1,000,000; amount of real estate transfers, \$5,427,846.64; eleven miles of sidewalk been built; seven miles of streets graded; 750,000 tons of freight received; the wholesale and retail trade amounted to \$40,000,000; total amount of manufactures, \$12,000,000; and \$115,026.58 was assessed as special revenue tax.

The educational facilities of Kansas City are excellent; every ward has a substantial brick public school-house. There are two theatres besides the opera-house; and the hotels, churches, business-blocks, and suburban residences, will compare favorably with those of cities of greater age.

Wyandotte, Kas. (285 miles), the capital of Wyandotte County, the first town in Kansas on the *Union Pacific Road*, is pleasantly situated. It was for some time the terminus of the *Kansas Pacific*, but is now only a way station. The population is about 3,000. The country immediately surrounding the place is hilly and somewhat broken, but back from the river it is excellent. A good bridge spans the Kaw River at this point. Wyandotte was first laid out in 1855, when "paper towns" were the great rage in Kansas.

Two hundred years ago, the great Wyandotte nation dwelt on the shore of Lake Erie, although scarcely fifty years since, driven westward by the inroads of civilization, they lived on the banks of the Missouri, at this point. There is a legend of a far-famed beauty in the tribe,

who attracted many lovers, but none could move her obdurate heart. At last a stalwart chief laid siege to her affections. Scores of scalps hung from his belt, and he bore the scars of many a hard-fought battle. Before this ardent wooer the dusky beauty relented; but she would accept him only upon solemn promise to do a deed which she was to name after he should assume the obligation. It was rash, but he took the vow. Then she made her demand. He must bring her the scalp of a Seneca chief, his friend and the ally of his nation. Entreaties and remonstrances were in vain, her hate was stronger than her pity. It was hard, but the old brave had sworn by his great medicine, and, like young Melnotte, he kept his oath. He brought the coveted scalp to this modern Herodias; but the wanton murder inaugurated a bloody war which outlasted the siege of Troy. It continued for more than thirty years, greatly reduced the Wyandottes, and almost exterminated the Senecas.

The late Albert D. Richardson, who tells this story, asks, "Why are the banks of the Sandusky less classic than the shores of the Hellespont? Why are Senecas and Wyandottes forgotten, and Greeks and Trojans immortal? The war of the former was three times longer, greater, more romantic. But the Homer was wanting to sing its epic."

Lawrence, Kas. (320 miles), the capital of Douglas County, is situated on the right bank of the Kansas River. It is one of the most beautiful towns of the West, and has considerable importance, having a population of about 10,000. It was first settled in 1854 by a colony of New-Englanders, and a few years later was the scene of much bloodshed between these and the "Border Ruffians." On the 21st of August, 1863, there was a frightful massacre by a band of Quantrell's guerillas, who surprised the town, killing some 150 persons, and burning about 75 buildings. The enterprising citizens soon recovered from this calamity, in less than a year erecting new and finer houses in the place of those destroyed, and building many others. The *State University*, a handsome edifice, is situated on Mount Oread, overlooking

the city. A bridge, built at a cost of \$45,000, crosses the river.

Two miles before reaching Lawrence, the *Kansas & Pacific Railway* connects with the *Leavenworth, Lawrence & Galveston Railway*. The latter is open 144 miles to Parker, Southern Kansas. Douglas County is well settled, and contains some of the most fertile land in the State. A new line of railway is now being built from Lawrence to Pleasant Hill, Mo., which will give almost an air-line to St. Louis. North Lawrence is on the other side of the river, and surrounds the depot.

Topeka, Kas. (350 miles), the capital of Kansas, and the seat of justice of Shawnee County, is beautifully situated on the south bank of the *Kansas River*. The *State House*, which cost \$400,000, is one of the finest in the West, and large enough to serve as such for many years to come. The city is well laid out, and has, among other fine buildings, *Lincoln College*, one of the leading educational establishments in the State, and the *Topeka Female Institute*, which is under the charge of the Episcopal Church. The school system of Kansas is unsurpassed by that of any Western State. Persons desiring to buy land in Kansas should go to Topeka, where the principal U. S. Land Office is situated. The population is about 8,000, nearly 6,000 being negroes. The *Atchison, Topeka & Santa Fe Railway*, now finished as far as Sargent, 417 miles from Topeka, diverges here.

Topeka is an Indian name, and signifies "potatoes." It has certainly outgrown the sobriquet of "small potatoes," and become one of the most flourishing towns in Kansas. The country which is around the celebrated Potawatamie Indian reservation is very rich, and is being settled up rapidly. The bridge over the Kaw River cost \$70,000. A fine capitol is building, at a cost of \$3,000,000.

St. Mary's Mission, Kas. (373 miles), is so called from the Catholic school, for the education of the Indian youth, which is established here. It is the centre of the "Potawatamie Indian Reservation," a rich agricultural district about thirty miles square. The mission was established in 1848 by the Jesuits. About 2,000 of that Potawatamie tribe

reside near it, many of their children attending the school. It is purposed to build a Catholic seminary here, at a cost of \$100,000. Excellent land in the neighborhood can be bought for from \$5 to \$15 per acre.

Wamego, Kas. (336 miles), is the end of the first division of the Kansas Pacific Railway, and is quite a thriving little place. It is situated on the banks of the Kaw River, near the southern line of Potawatamie County. The town was laid out in the summer of 1866, by the employes of the Kansas Pacific Railway Company. It is named after a distinguished chief of the tribe whose bones now rest in the reservation.

St. George, Kas. (393 miles), is at the mouth of the *Black Jack Creek*, from which it receives a valuable water-power, which is added to by the fall in the *Kansas River* at this point. The town has become one of the most important points on the road as a grain-depot. It is surrounded by rich and beautiful farming land, and bluffs which are admirably adapted to the culture of the grape, and furnish the finest building-stone on either side of the river.

Manhattan, Kas. (401 miles), the capital of Riley County, lies at the junction of the *Big Blue* and the *Kansas Rivers*, and is a flourishing place. The *Agricultural College* is located here. Five miles above the town, there is a fine water-power on the *Blue River*. Manhattan is one of the oldest and one of the handsomest places in the State. It was laid out in 1834. The location is beautiful, being in a rich valley, which is walled in by a circular range of high bluffs. The buildings are principally of stone. In the northern portion of the county are large settlements of Germans and Swedes. Land is worth from \$10 to \$50 per acre.

Ogden, Kas. (412 miles), is a well-built town, surrounded by a fine agricultural and grazing country. There are good stone-quarries in the neighborhood.

Fort Riley, Kas. (418 miles), is a military post, at the junction of the two main branches of the Kansas River (called *Republican* and *Smoky Hill Forks*). It is situated in the midst of a fertile country which abounds in timber, build-

ing-materials, good water and grass. It is used as a receiving and refitting rendezvous for troops going farther West. Near this place there is a Methodist mission. A splendid military road which commences at Fort Leavenworth passes through Fort Riley. The fort contains quarters for 1,200 men, and has until recently been used as an artillery-school. The military reservation for this post is 25,000 acres, 5,000 of which has been given toward bridging the Republican River.

Junction City, Kas. (421 miles), the capital of Davis County, is situated on the left bank of the *Kansas River*, near the mouth of the *Republican*. It is a place of active business, and has a United States Land-Office. The valleys of the *Smoky Hill River*, along which the railway continues its course, are very productive. In the bluffs near the town large beds of magnesian limestone are found, and rich quarries from which a fine, light-colored stone, somewhat like marble in appearance, is obtained. The *Missouri, Kansas & Texas Railway* connects at Junction City, and is now completed to Denison, Texas, where it connects with the *Texas Central*. Junction City was laid out in 1858, and has now a population of about 2,500. There is no finer town-site along the whole road. It is the centre of a large net-work of small villages, whose intervening hills make up a scene that is both picturesque and grand. (See APPENDIX.)

Abilene, Kas. (445 miles), the capital of Dickinson County, lies in the Smoky Valley, which is here wide and fertile, and affords excellent grazing. With the larger cattle-dealing firms it is a favorite point of concentration and shipment to the East for Mexican and Texan cattle.

Solomon City, Kas. (454 miles), is an enterprising little town on the north bank of *Solomon River*, one of the chief branches of *Smoky Hill River*, heading near the base of the Rocky Mountains, and for more than 250 miles flowing through one of the most beautiful valleys in Kansas. A New-Englander has engaged here in the extensive manufacture of salt. In some places the water is almost pure brine. The sur-

rounding country is bottom-land and fine rolling prairie.

Salina, Kas. (468 miles), the capital of Salina County, is situated on the *Smoky Hill Fork* of the Kansas River, in the midst of a fine agricultural country, abounding in rich saline springs and inexhaustible quarries of gypsum. It is destined to be the great shipping-point for the productive valley of the *Salina River*, and for the fertile country south of it along the Smoky Hill. South of the city a large colony of thrifty Swedes is settled, owning 15,000 acres of rich railway lands; and lying to the east is a colony of Scotchmen, who have purchased 46,000 acres of railway lands. Under the hands of such desirable colonists this section of the State is bound to prosper greatly. The town was located in 1858. This section of the country is particularly well adapted for grazing.

Brookville, Kas. (483 miles), is the end of the second division of the Kansas Pacific Railway, and a fine railway depot is building here. A few miles above it is the promising little town of Bavaria, originally settled by a colony from Ohio. Both are small towns, and have no local trade, the country around being unsettled, save by prairie-dog villages.

Fort Harker, Kas. (501 miles), one of the military depots for the forts on the Arkansas, has accommodations for 500 men. It is a well-built post.

Ellsworth, Kas. (506 miles), is situated in a fine stock-raising and a fair farming country, directly upon the north bend of the *Smoky Hill River*.

Fort Hays, Kas. (571 miles), an important military point in the western part of the State, is situated upon the plains, and has a fine position. Opposite, upon *Big Creek*, is Hays City, the centre of the buffalo range. The tourist who wishes to try his skill in hunting "the monarch of the plains," can have an opportunity of doing so by stopping at this point. Fort Larned, Camp Supply, and Fort Dodge, get their mails and government supplies from here. Fort Hays is built on a commanding elevation, and is one of the handsomest posts in the West. With the exception of a stone block-house, the buildings are of wood, and very neat.

Sheridan, Kas. (688 miles), is on the north fork of the *Smoky Hill River*. It was formerly of some importance as the terminus of the Kansas Pacific Railway, and had a population of about 1,000 souls; but the iron track, in passing into the region beyond, has left Sheridan only a town in name.

Fort Wallace, Kas. (703 miles), is an important military post, and a good base for operations. It is a short distance from the road, and is built of flesh-colored stone, which gives it a very striking appearance. It is near the western boundary-line of Kansas.

Kit Carson, Col. (770 miles), named after the great "Pathfinder," is situated on *Sand Creek*, about 20 miles above the spot where Colonel Chivington's great Indian massacre took place. At present this is the shipping-point for goods going to New Mexico and Southern Colorado, and there are three large commission-houses to do the business. Government also has a warehouse here for military stores. The place is picturesque with "prairie schooners."* In the neighborhood is scarcely any thing but sand-banks, and the only business the place has, is that furnished by the freighters.

Kit Carson was formerly the terminus of the railway. Large warehouses were built here, and the place grew rapidly for a time. Now Denver is the great central point of Colorado.

Between Kit Carson and Denver there are three or four "station towns," and the country along the line of the railway is rapidly filling up.

Denver, Col. (922 miles), in point of rapid growth and substantial prosperity, is one of the most remarkable cities in the Great West. It is beautifully situated on a plain at the junction of Cherry Creek, on the right bank of the South Platte River, 15 miles from the foot of the Rocky Mountains, 5,000 feet above the sea. The site of the city occupies a series of plateaus rising in steps by gentle and slight ascents from the river. It faces the great mountain-chain. The view from the city and its vicinity is

* The white-covered emigrant wagons are so called.

grand in the extreme. Through the clear mountain atmosphere may be seen *Pike's* and *Long's Peaks*, and the snow-capped range extending more than 200 miles, its rich purple streaked with dazzling white, and here and there draped in soft, transparent haze.

Denver is the commercial centre of Colorado; it closely resembles Springfield, Massachusetts. The city is compactly built, and its rows of handsome brick houses, fine hotels, banks, theatres, residences, and school-buildings, fill the stranger with wonder; for the first settlement was only made in 1858, and the municipal government was not organized until the winter of 1859. All the offices of the territorial government, surveyor-general's and land-offices, the headquarters of the military district, and the depots of arms and supplies, are located here.

The principal buildings are the *Colorado Seminary*, costing \$20,000; eight churches costing from \$5,000 to \$24,000 each; a *United States Branch Mint*, costing \$75,000, and a *Roman Catholic Academy*. There are also three private and two public schools, six banks, and three newspapers, one of which, the *Rocky Mountain Herald*, ably conducted by O. J. Goldrick, has the largest circulation throughout the Territories of any paper published between Omaha and San Francisco. Manufactories are not yet very extensive, but are increasing in importance. The gross sales of merchandise at Denver for the year 1870 amounted to over \$11,000,000, and it is claimed that there is now no finer market than this in the West for all classes of goods, wines, etc.

Various lines of best Concord coaches run daily between Denver and the twenty county towns of the territory, in connection with the five lines of railway now running in and out of Denver. Of these towns, the more important ones are: *Central*, 35 miles west; *Georgetown*, 45 miles west; *Pueblo*, 100 miles south; *Trinidad*, 150 miles south; *Boulder*, 27 miles northwest; *Golden*, 15 miles west; *Greeley*, 50 miles north; *Fairplay*, 100 miles southwest; and *Cañon City*, 120 miles southwest. Five railways diverge from Denver: the *Denver Pacific*, via Cheyenne and Omaha, to both the Atlantic

and Pacific coasts; the *Kansas Pacific*, via Kansas City, to the East; the *Colorado Central* to the mountain-mines, via Golden City; the *Boulder Valley* to the north-western mines, via Boulder City; and the *Denver & Rio Grande* (narrow gauge), now completed to Pueblo, 100 miles from Denver, and will be extended southward to a connection with the Southern Pacific Railway across the continent.

This is the point of departure of the *Southern Overland Mail and Express Company's* line of coaches for Pueblo, Trinidad, Las Vegas, Santa Fé, and all points in New Mexico, Arizona, Chihuahua, Sonora, and the far Southwest.

Taking the comfortable coaches of the *Denver Pacific Railway* we regretfully leave Denver behind and dash over the rich valley of the *Platte*, catching a glimpse of *Golden City*, 14 miles to the left, under the mountains. After riding 48 miles through this beautiful country, following the course of the river and passing the small stations of *Hughes* and *Johnson*, and the numerous ranches which are springing up on each side of the track, we cross the river by a trestle-bridge, about 1,000 feet in length.

Evans, Col. (661 miles), was for some months the terminus of the road. It is prettily situated, and will probably become an important place, as the *Big* and *Little Thompson Valleys* must of necessity become tributary to it.

Greeley, Col. (665 miles), to the left of the *Platte River*, but still in sight of the cottonwood-trees upon its banks, is one of the most wonderful instances of sudden yet permanent growth to be found in the West. It was settled on the 25th of April, 1870, by a colony headed by Mr. N. C. Meeker, formerly agricultural editor of the *New York Tribune*, and in a little over three months numbered 250 houses and 1,200 inhabitants as permanent residents. It is situated in the valley bounded by the *Cache à la Poudre River* and the *Platte River*. It is supplied with water through a canal from the *Cache à la Poudre River*, 12 miles distant, and now has churches, stores, school-houses, a weekly paper, etc., etc.

The *Cache à la Poudre* is crossed soon after leaving the town. It is a clear

mountain-stream, rising near Long's Peak, and traversing a valley so rich that for 50 miles the farms upon its banks are contiguous. The road here leaves the rich bottom-land and crosses over a part of the tract known as the *Great American Desert*, and, until reaching Cheyenne, passes through a country entirely destitute of timber and water. The only stopping-places are *Pierce*, *Carr*, and *Summit Siding*, the first two established by the company as water stations, and the latter being merely a side-track. For 14 miles before reaching *Pierce* the road runs between "dog villages," with their regular streets, curious houses, and still more curious inhabitants, prairie-dogs, owls, and rattlesnakes, living in harmony in the same habitation. Near Carr's is *The Natural Fort*, which is a mass of sandstone about 800 feet in length and from 10 to 12 feet high. It has been worn by the action of the weather until it looks like a ruined fortress.

Summit Siding, Col. (709 miles), marks the boundary between Colorado and Wyoming, and here we lose sight of the *Rocky Mountains*, which we have seen on the west since leaving Denver, and the *Black Hills*, 70 miles distant, come in view.

Cheyenne, Wy. (719 miles), was settled in 1867, when the *Union Pacific Railway*, with which the *Denver Pacific* connects here, first reached it in its westward progress. This has always been a point of some importance. Previous to the opening of the *Denver Pacific* all the freight and passenger travel to and from Colorado helped to increase the business of this place. To the tourist, looking at the pleasant cottages enclosed with neat fences, the substantial brick and stone business houses, and the air of life and industry, it seems wonderful that in 1867 this was a wild region without inhabitants, until the great civilizing influence of the railroad brought it into existence, and it was appropriately called the *Magic City*, so rapid was its growth. Like all Western towns, it had even more than its share of roughs, which more than once called for the strong arm of the "Vigilance Committee;" but dance and gambling houses

have had their day, and peace and quiet reign supreme. The town has a population of about 2,000. All branches of trade are carried on. Churches have been built, schools established, and Cheyenne can claim to be as orderly as any town west of the Missouri. The *Union Pacific Railway* has here an extensive round-house and shops in course of erection. When the terminus of the road was at this place a population of 5,000 was claimed, but, as the road moved, many went with it.

Thirty-two miles northwest is an immense deposit of iron ore which assays 80 to 90 per cent. The erection of iron-works is looked for at this point. The mail and passengers for *Fort Laramie*, a military post of some importance, 83 miles northwest, leave the railway here. During the days of emigrant travel through the *South Pass*, which lies west of *Fort Laramie*, it was a recruiting station where supplies could be obtained, cattle rested, and a new start taken for the Pacific—almost a half-way house.

Cheyenne is fortunate in one respect, at least, having an abundance of good coal in easy reach by the *Denver Pacific*, and plenty of pine-wood in the *Black Hills*.

ROUTE XVIII.

OMAHA TO SAN FRANCISCO.

Via *Union Pacific*, *Central Pacific*, and *Western Pacific* Railways. (Time, 4 days, 9 hrs.
—Fare, \$100.

STATIONS.—*Union Pacific Railway*.—Omaha to Gilmore, 10 miles; Papillon, 15; Elkhorn, 29; Valley, 35; Fremont (connects with *Sioux City & Pacific Railway* and with *Fremont & Elkhorn Valley Railway*), 47; Ketchum, 54; North Bend, 62; Schuyler, 76; Cooper, 84; Columbus, 92; Jackson, 99; Silver Creek, 109; Clark's, 121; Lone Tree, 132; Chapman's, 142; Grand Island, 154; Pawnee, 162; Wood River, 172; Gibbon, 183; Kearney, 191; Stevenson, 201; Elm Creek, 212; Overton, 221; Plum Creek, 230; Coyote, 240; Willow Island, 250; Warren, 260; Brady Island, 268; McPherson, 277; North Platte, 291; Nichols, 299; O'Fallon's, 307; Alkali, 322; Roscoe, 332; Ogallala, 341;

Brule, 351; Big Spring, 361; Julesburg, 377; Chappell, 387; Lodge Pole, 397; Colton, 408; Sidney, 414; Brownson, 423; Potter, 433; Bennett, 442; Antelope, 451; Bushnell, 463; Pine Bluffs, 473; Egbert, 484; Hillsdale, 496; Archer, 508; Cheyenne, 516; Hazard, 523; Otto, 531; Granite Canyon, 536; Buford, 542; Sherman, 549; Harney, 558; Red Buttes, 564; Fort Saunders, 570; Laramie, 573; Howell's, 581; Wyoming, 587; Cooper's Lake, 602; Lookout, 606; Miser, 614; Rock Creek, 623; Como, 638; Medicine Bow, 645; Carbon, 656; Simpson, 662; Percy, 669; Dana, 675; St. Mary's, 680; Walcott's, 688; Fort Steele, 696; Grenville, 704; Rawlings, 709; Separation, 723; Creston, 737; Washakie, 752; Red Desert, 761; Table Rock, 775; Bitter Creek, 785; Black Buttes, 794; Hallville, 798; Point of Rocks, 805; Salt Wells, 817; Van Dykes, 828; Rock Springs, 831; Green River, 845; Bryan (connects with stages for the Sweetwater Mining Region), 858; Granger, 876; Church Buttes, 887; Carter, 904; Bridger, 913; Piedmont, 928; Aspen, 937; Evanston, 955; Alma, 957; Wahsatch, 966; Castle Rock, 975; Echo, 991; Weber, 1,007; Devil's Gate, 1,019; Uintah, 1,024; Ogden (connects with Utah Central and Central Pacific Railways), 1,032.

STATIONS.—*Central Pacific Railway*.—Corinne, 1,055 miles from Omaha; Blue Creek, 1,073; Promontory, 1,084; Rozel, 1,092; Lake, 1,100; Monument Point, 1,105; Kelton, 1,123; Matlin, 1,137; Terrace, 1,153; Bovine, 1,164; Lucin, 1,177; Tecoma, 1,188; Montello, 1,197; Loray, 1,206; Toano, 1,214; Pequop, 1,224; Otego, 1,230; Independence, 1,236; Moore's, 1,242; Cedar, 1,244; Wells, 1,250; Tulasco, 1,258; Deeth, 1,271; Halleck, 1,284; Peko, 1,287; Osino, 1,297; Elko, 1,307; Moleen, 1,319; Carlin, 1,330; Palisade, 1,339; Cluro, 1,350; Beowawe, 1,358; Shoshone, 1,368; Argenta, 1,379; Battle Mountain, 1,391; Side Track, 1,403; Stone House, 1,410; Iron Point, 1,422; Golconda, 1,434; Tule, 1,445; Winnebucca, 1,451; Rose Creek, 1,461; Raspberry, 1,472; Mill Creek, 1,479; Humboldt, 1,492; Rye Patch, 1,504; Oreana, 1,514; Humboldt Bridge, 1,521; Lovelock's, 1,525; Granite Point, 1,533;

Brown's, 1,541; White Plains, 1,553; Mirage, 1,560; Hot Springs, 1,568; Desert, 1,578; Two-Mile Station, 1,585; Wadsworth, 1,587; Clark's, 1,602; Camp 37, 1,614; Reno, 1,622; Verdi, 1,632; Boca, 1,648; Truckee, 1,656; Strong's Canyon, 1,668; Summit, 1,671; Cascade, 1,677; Tamarack, 1,681; Cisco, 1,684; Emigrant Gap, 1,692; Blue Canyon, 1,698; China Ranch, 1,700; Shady Run, 1,702; Alta, 1,707; Dutch Flat, 1,709; Gold Run, 1,712; Colfax, 1,722; Clipper Gap, 1,733; Auburn, 1,740; Newcastle, 1,745; Pino, 1,750; Rocklin, 1,754; Junction (connects with Oregon Division), 1,758; Antelope, 1,761; Arcade, 1,768; American R. Bridge, 1,769; Sacramento, 1,775.

STATIONS.—*Western Pacific Railway*.—Brighton, 1,780 miles; Florin, 1,784; Elk Grove, 1,791; Cosumnes, 1,794; Galt, 1,802; Mokelumne, 1,810; Stockton, 1,823; Wilson's, 1,831; Banta's, 1,839; Ellis, 1,844; Midway, 1,850; Altamont, 1,858; Livermore, 1,866; Pleasanton, 1,872; Niles, 1,884; Decota, 1,886; Lorenzo, 1,895; San Leandro, 1,899; Alameda, 1,907; Oakland, 1,910; San Francisco (connects with steamships for principal ports in China, Japan, Australia, Sandwich Islands, and New Zealand, also for ports on the western coast of the United States), 1,914.

Omaha (414 miles from Chicago), the principal city between Chicago and the Pacific, is destined to be one of the largest in the West. The site is a plateau rising from the river westward to the bluffs, and the city presents a fine appearance to the traveller crossing the wide Missouri Valley from the eastward. The hills on the west command a splendid view of Council Bluffs on the east, the wide Missouri River for miles north and south, and an extensive stretch of wide, undulating prairie covered with rich farms on the west.

The situation of Omaha, commanding for it an extensive trade with the West, has caused its almost unprecedented growth, from a population of 1,883 in 1860, to that of 18,000 shown by the late census.

There are a number of first-class hotels, but, to meet the wants of the public at this great central point of the continent,

a handsome five-story hotel was erected recently at a cost of \$200,000.

The bridge across the Missouri, one of the finest structures of the kind in the country, is just finished, and affords unbroken railway connection from ocean to ocean. It was built by the Union Pacific Company, and cost over a million dollars. It is a magnificent structure of iron, 60 feet above high-water mark, and has, besides a railroad-track, a street-car and wagon-way.

There are in Omaha 17 church edifices, some of which are very handsome.

The high-school house in course of erection at a cost of \$200,000, and the brick buildings recently erected in different parts of the city as graded schools, are all of the first order.

The shops of the *Union Pacific Railway*, the new smelting-works for refining silver-ore from the mountains, iron-works, and manufactories of various kinds, give employment to many mechanics and laborers; while the trade of the Western mines and country adjacent to the connecting railroads supports a large wholesale trade.

During the year 1870, the improvements, public and private, footed up to nearly a million dollars. The business of the five banks exceeds that of many cities of three times the population. Travellers from the East will find Omaha an excellent place to stay at for a day, and witness the life and activity which prevail in the growing cities of the West.

Omaha is the great central railroad city on the Missouri. The *Chicago, Rock Island & Pacific*, *Chicago & Northwestern*, and *Burlington & Missouri*, from the east, *Kansas City, St. Joseph & Council Bluffs* from the south, the *Union Pacific* from the west, and the *Omaha & Northwestern* and *Omaha & Southwestern Railways*, connect here. The latter roads have been built and are owned by Omaha capitalists, each operating 25 miles, and extending their lines into the rich agricultural districts of the State.

From Omaha we commence our journey on the *Union Pacific Railway*, seated in one of the luxurious Pullman palace-

cars with which every American traveller is familiar. Passing the wooded hills, a wide rolling prairie opens before us, with fine farm-houses and groves of timber about them. On our left is the belt of forest along the bluffs of the *Missouri River*, and we can hardly realize that only a few years ago this country was inhabited by the red-man, and that the "tread of pioneers" had not been heard west of the great tributary of the "Father of Waters."

At **Gilmore, Neb.** (10 miles), the first station, we enter the *Papillon Valley* and turn westward. Three miles beyond we pass a beautiful grove of timber, where for years was the home of the *Omaha Indians*, until they were removed to their present reservation.

Papillon Station, Neb. (15 miles), has a grist-mill, two stores, hotel, etc., the nucleus of a Western town. From here we have a fine rolling prairie country, dotted with white farm-houses, until we reach

Elkhorn, Neb. (29 miles), a station from which a large quantity of grain is shipped. Two miles beyond we pass through a cut in the bluffs, and the beautiful valley of the *Platte*, through which the road extends 400 miles, opens to our sight. One cannot but be impressed here with the first view of one of the finest agricultural regions of the world, destined to become the garden of the West, and support a vast agricultural and manufacturing population.

Entering the valley, we cross the *Elkhorn River* on a substantial bridge, and looking westward we see a grand expanse of prairie, with bluffs on either side, and everywhere signs of prosperity and advancement. An enthusiastic correspondent thus writes his first impressions, on sighting the valley of the *Platte*: "Seen as it was by us upon one of the most beautiful days which ever gladdened Nature by unclouded sunlight, after hours of a lowering sky and inclement weather, it burst upon the view like a scene of enchantment, as if some fairy hand lifted the veil and spread before the observer a grand, gigantic panorama. Upon the south rolled the waters of the *Platte*, broad and swift, while far upon either side lifted the bluffs which border the

valley, and which are the great walls to this garden of Nature. Vegetation was in its most luxuriant stage, the green plain stretched forth its emerald carpet as far as the eye could reach, and yet it was but the entrance to a tract 400 miles in extent, the whole of which was equally as grand and beautiful as this. From the vast expanse in front the eye wandered back again to the bluffs, and the mind intuitively felt how fit a setting were they for this radiant girdle on the form of fair Nebraska. If one would gain an idea of the stupendous character of the works of Nature, let him visit the mountains, the cataracts, and the colossal structures the Great Architect has reared in the Old World and the New. But looking upon them moves one with wonder and amazement, while this broad, level tract, with its river gleaming in the sunlight, its bosom decked with the loveliest flowers, awakens adoration and a delight which one would wish might live forever."

Valley, Neb. (35 miles), is the first station after leaving Elkhorn. It has a hotel, a store, and a few other houses.

Fremont, Neb. (47 miles), an eating-station, is a place of about 2,000 inhabitants, which has grown very rapidly since the building of the *Union Pacific Railway*. An elevator near the depot indicates that it is a grain-market, and large quantities are shipped from this point. From here the *Sioux City & Pacific Railway* runs daily trains connecting with the *Chicago & Northwestern Railway*, in Iowa, 26 miles above Council Bluffs. This is also the initial point of the *Fremont & Elkhorn Valley Railway*, extending northwesterly, 50 miles up the *Valley of the Elkhorn*, and passing through the town of *West Point*. All branches of trade are well represented. Forty stores of different kinds, several hotels, churches, and school-buildings, a flourishing newspaper, etc., evince thrift and enterprise.

North Bend, Neb. (62 miles), is a town recently commenced. It is surrounded by a fine and well-settled farming country. The *Platte River* on our left is here first approached, although we have been travelling parallel with it for some distance. The impression a tourist will form of this stream will be controlled

somewhat by the stage of the water. At high water it is an unbroken sheet from bank to bank, from one to two miles wide; at low water a great bed of quicksand blown about by the wind, with here and there shallow streams. Numerous well-wooded islands are scattered along, and in winter the abundant red cedars form a pleasing contrast with the leafless cotton-woods. The value of this stream to the country west of here 200 miles is yet to be understood. The soil is rich, but the want of sufficient rain prevents cultivation, and this defect is to be overcome by irrigation, which can be accomplished at slight expense from a stream which has a descent of seven feet to the mile. Whenever irrigation has been tried in the West, astonishing and certain crops have been the result; and all this great valley to the west of us is yet to be rendered productive by the waters of the much-abused *Platte River*.

Schuyler, Neb. (76 miles), is a town of only two years' growth, and contains 500 inhabitants. Quite a colony from Nova Scotia has settled near here on homestead and railroad lands, and is doing well. On the right of the main track are the extensive cattle-yards from which 50,000 head of Texas cattle were shipped during the season of 1870.

Passing Schuyler we can look westward along the lines of iron rails till they converge to a point in the dim distance, and the row of telegraph-poles fades from view. Along the railway for some distance we have a view of the overland emigrant road, now fast growing up to grass. Over this great highway has rolled that living tide which has peopled the Pacific slope, developed her mineral wealth, and built her cities. The gold-hunters of Pike's Peak and California, in their eager pursuit of wealth, have toiled along this dusty road toward the setting sun. The Mormons with ox-teams and hand-carts have dragged along their weary loads through mud and snow, looking for a home, as they hoped, of peace and plenty, to at last find an end of their wanderings in the sterile valleys of Utah, which by persistent toil they have in some places made to blossom as a garden. The evening camp-fire, the grazing cattle,

and the white covered wagons, drawn up in a circle at night, are all things of the past, and in their stead the iron horse thunders along the plains, and wakes the echoes in the hills.

Columbus, Neb. (92 miles), the next stopping-place, is a town of about 1,000 people, destined to be one of some importance. A bridge just built across the *Platte* connects it with the settlers in Butler County. A railway from Southern Nebraska will soon pass through here, and westward up the valley of the *Loup*; while another to Sioux City will furnish lumber direct from the pine regions of Minnesota and Wisconsin. A good supply of timber, excellent water, and fine farming lands, make this section one of the best in the State.

Fifteen miles northwest is the reservation of the *Pawnee Indians*, who now number about 1,000. Their rich lands, lying on the *Loup Fork River*, are divided into farms. The game yearly becoming less plenty, they find that their living must be derived from the soil, and in 1870 they raised good crops of corn, beans, etc.

Three miles west of Columbus we cross the *Loup* five miles above its confluence with the *Platte*, on a substantial bridge 1,500 feet long.

Silver Creek, Neb. (109 miles), and **Lone Tree, Neb.** (132 miles), are passenger stations, around which stores and dwellings have been recently built. Near the latter place the old emigrant road to Colorado crosses the *Platte* at a point well known, years ago, as *Shinus Ferry*, and continues westward on the south side.

Grand Island, Neb. (154 miles), an eating-station, taking its name from a large, well-timbered island in the *Platte*, 60 miles long and 4 miles wide, is a place of 800 inhabitants, which has been entirely built up since the railway was finished to this point in 1867. It has a large steam-mill near the depot, which turns out a hundred barrels of flour per day. The farming country is principally settled by Germans, who have done much toward its improvement.

Wood River, Neb. (172 miles), is a station near a stream of the same name, which is crossed by the road. Here

the valley is very wide, and affords splendid grazing facilities.

Kearney, Neb. (191 miles), is a station supplying the military post of the same name on the opposite side of the river, four miles away. Here the stream is three miles wide, with numerous channels and wooded islands. The flag on the parade-ground can be seen in a clear day above the timber of the river. The post was established in 1848, and was for years a point of great importance to the overland emigrants, being the last place east of the mountains where supplies in any quantity could be had; but its busy life has departed, and a few adobe* buildings now mark the spot where a great trade once flourished. One company of soldiers garrisons the fort. Here is the point of prospective connection of the *Burlington & Missouri Railway*, now built as far west as *Lincoln*, the capital of Nebraska. Buffalo, which in countless herds once roamed about the limits of the military reservation, can still be found in limited numbers within 25 miles.

Elm Creek, Neb. (212 miles), is a small station near a well-wooded stream of the same name. The country maintains the same general appearance, a wide-spread valley covered in the spring with a short growth of very nutritious buffalo and grama grasses, a grazing-ground for countless herds of cattle.

Plum Creek, Neb. (230 miles), is a small station of a few houses. Here for many years the Indians, in their semi-annual excursions in pursuit of game, crossed the *Platte*. About three miles west of the station was the scene of the "*Plum Creek massacre*" in 1868. A roving band of Sioux tore up a rail and threw a freight-train loaded with valuable goods from the track, killing the engineer and fireman, the other employes escaping in the darkness. Daylight disclosed a scene of wild riot and plundering. Broken bales and boxes of goods were scattered over the ground, and after loading their ponies the savages set fire to the cars and crossed the *Platte*, going southward. But the avenger was swiftly on their track. A company of

* This word is colloquially pronounced as if written "dobey." Adobe is sun-dried brick.

Pawnee scouts, then employed by the Government in guarding the road, were telegraphed to, and soon on their trail, eager to take vengeance on their ancient enemies. Some miles south of the river they overtook the Sioux among the hills, laden with their booty, and a short and bloody conflict ensued. Next day sixteen Sioux scalps were fluttering in the breeze before the camp of the Pawnees, and the departed spirits of that many of their tribe were avenged. The writer will never forget the rejoicings he witnessed in that camp, over the "heap-scalp." Those experiences have passed away, and the Indians have ceased troubling the road, and the strife between these two tribes ended in peace.

Willow Island, Neb. (250 miles), and **Brady Island, Neb.** (268 miles), are small passenger stations.

McPherson, Neb. (277 miles), is a supply-station for the fort of the same name, four miles away, on the other side of the river. This post was built in 1863 for the protection of the emigrants, and is now garrisoned by six companies of troops. Large quantities of red-cedar ties, telegraph-poles, and wood, have been cut in the cañons near here for the use of the railway, and a succession of bridges built from island to island across the numerous channels of the Platte. Just below here the *North* and *South Branches* of the *Platte* unite. At McPherson Station a tract of several thousand acres is naturally irrigated from Pawnee Spring. This was formerly a favorite camping ground on account of the abundant grass and good water. Thousands of tons of hay are cut here for the military posts, and points along the railway.

Ten miles farther we cross the *North Fork of the Platte* on a bridge 3,000 feet long, supported by cedar piles; and two miles beyond arrive at

North Platte, Neb. (291 miles), where the railway company has a fine hotel, round-house, and machine-shop for repairs. Some good business houses and neat cottages give the town a thrifty aspect. Here that often indefinite point (when the rails were being laid from two to five miles a-day), the "end of the track," was located during the winter of 1867, and the town presented a long line

of tents and board shanties—every other one being a whiskey-shop, whose sole capital was a gallon of "tarantula-juice," half a dozen empty bottles of "bitters," and a crowd of hang-dog loafers, and low gamblers. The "roughs" carried on their shooting and robbing until the Vigilance Committee, the only power they dreaded, visited merited punishment on some of the ringleaders, and as the road moved on they sought new locations, and left a quiet and orderly town behind. Between the town and the South Platte Colonel Parke, the editor of the *North Platte Advertiser*, and some others have constructed an irrigating ditch, which waters a large tract of land, and has proved a decided success. This is the shipping-point for large numbers of cattle raised on natural grasses.

O'Fallon Station, Neb. (307 miles), takes its name from the bluff in plain view on the opposite side of the river, and well known to the plainsman a few years ago. Here the emigrant passed through deep ravines, once the dreaded lurking-place of the Indians, who waited to surprise unprotected trains. Alkali begins to appear, and one can see in a dry season the crystals glistening white as snow in the ditches beside the track.

We have left behind the farming lands, and enter a vast grazing country, which extends to the base of the Rocky Mountains. These boundless prairies, covered in summer and winter with nutritious grasses, will furnish unlimited pasturage. The mildness of the climate, and the dryness and purity of the atmosphere, render this country peculiarly adapted to grazing.

Alkali, Neb. (322 miles), is directly opposite the old stage-station of the same name. The remains of the old sod buildings and corrals where the ranchmen braved the attacks of the savages can in many places be seen; but for a hundred miles, where once the road was lined with white-topped wagons, now not a single white man is found.

Ogalalla, Neb. (341 miles), is near the old "California Crossing" of the Platte and opposite where once stood the well-known trading-post of *Beauvais*, who was afterward United States peace commissioner at Larabee.

Big Spring, Neb. (361 miles), is named from a fine spring of water which flows from the adjacent bluffs, and has refreshed many a weary traveller. Since leaving North Platte Station the road has been near the bank of the stream, and the tourist has had a full view of the whole valley.

Julesburg, Neb. (377 miles), was once famous as the "wickedest town in America," and during the short stay at the station one can hardly realize that here once stood a town of 4,000 people. After a growth of six weeks, twenty large government and private warehouses were erected, and goods for all points West shipped in great quantities by teams. Gambling and dance houses were abundant, and some of the victims of the lawlessness and crime of those days lie buried on the hill north of the depot, where a few boards mark their graves. When the road reached Cheyenne, the portable buildings were pulled down, and moved away. Now, two depots and three other houses indicate the spot, and the cactus which once covered the ground is fast spreading over the site of the "fastest" city of the continent.

Three miles south, on the opposite bank of the river, the white buildings of *Fort Salguick* can be seen, now garrisoned by two companies of troops. Here, 200 miles from Denver by the old wagon-road, was an important and busy point before the railroad was built. After passing Julesburg we leave the river, which we have had in view for 350 miles, and turn northwesterly up the valley of *Lodge-Pole Creek*. Herds of antelope are seen feeding quietly on the hills, and, except the prairie dogs, are almost the only signs of animal life.

The *Valley of Lodge-Pole Creek* is about an average of a mile and a-half in width. The old road to Fort Laramie follows the stream for some distance.

Sidney, Neb. (414 miles), is the largest place between North Platte and Cheyenne. Here are a round-house, repair-shops, a large hotel and eating-house, a small military post, several stores, and other business-houses. The Indians were once very troublesome in this neighborhood, and the tourist may notice while travelling with Mr. Cahoon, a popular

passenger conductor on the western division, that when he lifts his hat a bare spot is displayed which he says his "invigorator" does not affect. While fishing in the creek only half a mile from the station, a band of Indians, who had no doubt been watching him from the hills, came suddenly upon him, shooting him in several places with arrows, securing his scalp, and leaving him for dead. After several months he finally recovered, but during a long personal acquaintance the writer never heard him express a wish to try it a second time.

The dry climate and rich pasturage here have proved very favorable for sheep-raising, which promises to be an important feature on the high table-lands of Western Nebraska. Moore & Brother have, at Sidney, 8,000 sheep, which have proved a profitable investment.

Leaving Sidney, the bluffs on the right are a poor quality of limestone. Just before passing a high rocky point we catch the first glimpse of scrubby pines growing among the rocks.

Potter, Neb. (433 miles), the next stopping-place, is an unimportant station, at an elevation of 4,375 feet. During the past 24 hours our ascent has been so gradual that we can scarcely realize that we are almost 2,500 feet higher than Omaha.

Antelope, Neb. (451 miles), consists of a station-house, water-tank, and section-house, and the country possesses the same features displayed for the last 50 miles. Some time before reaching the next station—

Pine Bluffs, Neb. (473 miles)—we get a view of the rocky hills on the left, with straggling pines from which it takes its name. Here large quantities of pine-wood have been delivered to the railroad company, and this station will yet be one of some importance when stock-raising is carried on extensively. The broad valley to the northwest, the high perpendicular rocks, with the creek meandering at their base, present a pleasing picture, which we have a few minutes to look upon while the train stops for water. Before the railroad was built, an adventurous ranchman put up a stone-house here, and surrounded it with a stockade, where travellers felt comparatively safe

from Indian attacks. In this locality used to be the favorite hunting-grounds of the Cheyennes during the summer.

Hillsdale, Wy. (496 miles), is reached with ease, but the grade is very perceptible. The road-bed consists entirely of gravel, and is so substantial that it needs but little repairs in a country where rain is limited.

Just before reaching *Archer* we have a glimpse of the Rocky Mountains, whose tops are covered with eternal snows. The traveller may mistake them for clouds; but, as he ascends, the dark belt of pines just below the snow-line will dispel the illusion. The first view of the great chain of mountains, which have been known to us since the days of boyhood geography, is at once grand and beautiful. [See chapter on COLORADO.]

As the tourist scans this mountain-range, extending southward, *Long's Peak*, 14,000 feet high, is plainly visible, and the *Spanish Peaks* are in the dim distance.

Away to the north as far as the eye can reach is seen the dark line of the Black Hills, very appropriately named, for the rocks and pines half-way down their sides give them a sombre aspect. From *Archer* the track has a descending grade, and through several cuts we reach the plain, with Cheyenne, the "Magic City," in full view. Just before reaching the town the Denver Pacific Railroad is seen on the left, extending southward.

Cheyenne, Wy. (516 miles, elevation 5,931 feet), was unknown before the building of the Union Pacific, which reached this point in 1867. It has been fully described in ROUTE XVII. (See page 94.) Leaving Cheyenne, the train crosses *Crow Creek*, a mile west of the town, and from this point we get a good view of *Fort D. A. Russell*, three miles north. Large amounts of government freight are distributed from this post, which is garrisoned by eight companies of troops.

Hazard, Wy. (523 miles), is an unimportant point. During the last six miles the grade has been 60 feet to the mile, and from Cheyenne to the summit averages nearly 90. After leaving this station the rugged mountain scenery is gradually approached, and looking back we get a good view of Cheyenne, the fort, and the great plain northward.

Approaching *Granite Cañon*, the rise is very perceptible, and the heavy grading through the solid rock is first met with. The elevation reached is 1,367 feet above Cheyenne. Here, while the road was building, was quite a village of boarding-houses, stores, blacksmiths' shops, etc., which have entirely disappeared, leaving a few tumble-down fireplaces to mark the spot. Granite is the main formation, with occasional outcroppings of limestone, and here and there streaks of quartz extending from the gold-regions of Colorado. Snow-fences and walls of rock become frequent along the track, and afford substantial protection from the drifting snow of winter. Although the fall of snow here never exceeds six inches, still the high winds which prevail at that season would drift it into the cuts, which would seriously obstruct travel. The extensive defences erected by the Central and Union Pacific Railways proved effectual in keeping the long line clear during the winter of 1870, but, in 1871-'72, "blockades" were numerous and the suffering serious. Many miles of sheds were built during the past summer, and no further trouble is apprehended. After passing the last station the road continues to ascend; winding its way among the hills until reaching *Buford*, a side-track, we gain an altitude from which we have a fine view north and south. The mountain-peaks away to the south are more plainly visible, and on a clear day the outlines of *Pike's Peak* nearly 300 miles off, are in view. On the right, wild, rugged mountains of granite rocks, which seem to have been piled here by some great convulsion of Nature, meet the eye, with pines, whose green foliage relieves the sombre aspect, growing in the clefts almost to their summits.

Sherman, Wy. (549 miles, elevation 8,235 feet), is the most elevated railroad station in the world, and possesses many attractions for the tourist. Those wishing for clear mountain-air, fine trout-fishing, and a wide field for botanical study, will find them here. Tourists should spend a day or two at Sherman. At *Virginia Dale*, a beautifully picturesque spot, 12 miles south of the station, was an old stage-station, which has recently been bought by a person who intends making a large stock ranche of

it. The protection afforded in winter, and rich pasturage, make it very desirable for that business. Abundance of excellent speckled trout are found in the creek, and the *Cache à la Poudre*, of which it is a tributary. Creighton & Alsop, the great cattle-men of the plains, have thousands of cattle in this region, and during the winter ship large numbers East. The beef fed on this mountain-grass has a peculiarly rich flavor, and is said to be much better than that fed on grain. These valleys will yet be covered with fields of grain, and the hills with herds of cattle. After leaving Sherman, we commence a descent toward the Laramie Plains, and a mile from the station we pass *Reed's Rock*, a massive pile of granite on the right of the track, well-known as a landmark to all old plainsmen.

Dale Creek Bridge is the first object of notice, being a fine structure 650 feet long, and 125 feet above a tiny stream which winds down the rocky gorge. The bridge is well built, and stayed with wire cables anchored in the rock. Passing through deep rock-cuts which rise high up on our right, with straggling pines and wild-flowers in the ravines, we emerge from the hills and *Laramie Plain* is spread out before us, a grand and beautiful sight. On the west, 20 miles away, rise the lofty mountains whose tops we could see east of Cheyenne; but here we have a full view of them as they rise from the plain. The dark shade for some distance up their sides is the growth of pines which has furnished large quantities of ties and telegraph poles. Directly west the evening sun shining on a thread of silver along the plains to the north marks the course of the *Laramie River* from a gorge of the mountains, as it takes its course along the valley, and here we get an idea of this vast table-land, over 7,000 feet above the sea, walled in by ranges of mountains on either side, and stretching northward till the *Medicine Bow Mountains*, 80 miles away, bound the view.

Red Buttes, Wy. (564 miles), the first station on the plains, is named from red sandstone hummocks, rising 50 to 75 feet high.

Fort Saunders, Wy. (570 miles), a military post, is in sight for some

distance, and a side-track here affords convenience for receiving stores. This post, established in 1866, is very beautifully situated near the *Laramie River*. Quite a large field adjoining has been fenced in, and excellent crops of vegetables raised, by the aid of irrigation, for the use of the soldiers.

Laramie, Wy. (573 miles, elevation 7,123 feet), is a very pleasant town, built up entirely since the advent of the railroad. Here the company has erected a hotel, round-house, and machine-shops, giving employment to a large number of men. There is a delightful chance during the summer to spend a few weeks here away from the heat and dust of the city. Hunting, fishing, riding, rambling among the *Black Hills*, or excursions to the mountains, and climbing to the snowy line in a warm day, all afford agreeable and healthy excitement. A good appetite is one of the consequences, and under a blanket covering the nights are passed in refreshing sleep.

The *North Park*, which lies directly west of here, promises when thoroughly prospected to prove a rich mineral region. Several parties during 1869 found gold there in paying quantities, but, owing to Indian troubles, the work was deserted after several miners had been killed. When these mines are worked, as they soon will be, it is believed by old miners that they will prove very profitable, and, together with the lumbering interests, cannot fail in time to aid materially in building up Laramie. A fine spring in the *Black Hills*, from which a ditch has been dug, furnishes an abundance of clear cold water, running through the principal streets. A prominent feature of Laramie is its neat churches. The *Laramie Sentinel* is a lively and well-edited newspaper. On the left after leaving the town, and near the crossing of the river, fenced fields and claim-shanties attract attention, indicating that agriculture has made a start on these plains. The land when ploughed looks rich and inviting. Our route now is through a valley 30 miles wide with mountains on either side. Fourteen miles from the last station, crossing the *Little Laramie River*, which rises in the mountains to the west, we come to

Wyoming, Wy. (587 miles), an unimportant water and telegraph station. The same description will apply to *Look-out* and *Miscr.* At the latter we are at an elevation of 6,827 feet, and from there begin again to ascend as we go west. Sage-bush covers the barren reddish soil, and one cannot help thinking of the oft-repeated question, "What was this country made for?" "Mark Twain" has given the only answer when he said, "Why, to build a Pacific Railroad." What is hidden in the soil of this sterile country is thus far unknown.

Rock Creek, Wy. (623 miles), and **Como, Wy.** (638 miles), are telegraph-stations, the latter having an increased altitude of about 400 feet over the former, and near it is a small lake where is found a reptile well known to naturalists (*Siredon lichenoides*), but called "devil-fish" here. It has the head and tail of a cat-fish, with four legs like a large lizard. Notwithstanding the *Munchausen* stories as to its size, it is usually about 10 inches in length.

Medicine Bow, Wy. (645 miles), the next station, is named from a stream which takes its rise in the pine-forests of the mountains, and, like all these mountain-streams, was of vast benefit for floating ties to the railroad during its construction. As the pine-forests of the Eastern States are consumed and cut away, these mountain-regions will furnish the next supply, and the camp of the Maine lumbermen may be moved to the wild mountain-regions of the West.

Carbon, Wy. (656 miles), at an elevation of 7,008 feet, has become of some importance from the coal-mines which have been opened here, giving employment to a large number of men, and building up quite a village. One mine was opened alongside of the track, and large quantities of coal were being taken out both for the use of the road and shipment as far east as Omaha, when it caught fire, and the company was compelled to open it in another place; the families living over the mine, considering it safer to live in some other locality, changed places too. From

Percy, Wy. (669 miles), we have a fine view of *Elk Mountain*, about 6

miles south, which is the most prominent feature in the landscape. This is one of the peaks of the *Medicine Bow Mountains*, rising above the snow, and covered for some distance up its sides with forests of pine-timber. Game is found here in greater abundance than at any other point on the road. The *Utes* have made continual trouble with prospectors in this region, and there is much yet to be learned of its condition and value. Near

St. Mary's, Wy. (680 miles), the country becomes more rugged and wild, and there are abundant evidences that the whole valley was once the bed of a vast body of water. Nothing flourishes on the uplands but sage-brush, while Jack rabbits and horned toads with genuine tails are almost the only specimens of animal life which the traveller can see. *Fort Fred Steele* is built at the crossing of the *North Platte*, the same stream crossed before on a long bridge 290 miles from Omaha. There it was a wide, shallow stream, with beds of shifting quicksand. Here the clear waters flow over a pebbly bed, and are as cool as can be desired in the hot days of July, coming as they do directly from the snows of the mountains. A few trees along the stream afford some relief after such a barren stretch. The post is substantially built of pine-logs, and stands in a pleasant location. Two miles beyond are a few chimneys and the remains of some old adobe buildings where once stood the town of *Benton* on an alkali plain, and numbered at one time, in the summer of 1868, 2,000 persons, among whom whiskey-sellers and gamblers were plenty, but, as the road passed on, the people went with it, and nothing remains.

Rawling, Wy. (709 miles), an eating-station, is a point where the railway has a round-house and machine-shops, with an hotel, etc. The whole country is rough and broken, the ground at times white with alkali, the water brackish, and nothing to induce an extended stay. Near here some gold-mines have been worked, and a kind of mineral paint is found in large quantities. Passing between high bluffs, we come to *Separation*, 13 miles beyond, a small telegraph-station, and at

Creston, Wy. (737 miles), we arrive at the dividing ridge of the continent, from which waters flow each way, eastward to the Atlantic, and westward to the Pacific. The advent of the iron rails was the occasion of a celebration at this point, when the long slope from the eastward had been climbed, and the descent to the Pacific was before the builders of the great highway.

Washakie and Red Desert are unimportant stations on the barren alkali plains.

Table Rock, Wy. (775 miles), is named from a level stretch of bluffs extending for miles along the side of the road. Here there was much labor in building the railway, where cuts and fillings continually succeed each other.

When the road was being constructed it was necessary to have a special water-train to supply the workmen and the engines, while carrying forward the work through this section.

At **Bitter Creek, Wy.** (785 miles), the company has erected a round-house and repair-shops. From here we descend the *Bitter Creek Valley*, along a stream so strongly impregnated with alkali that freighters often suffered severely from their cattle drinking the water. The old stage-road is marked by telegraph-poles.

We are now reaching the end of the vast wilderness through which we have been passing for many hours. The waters of Bitter Creek are carried on to Green River, reaching which, the monotony gradually gives way to more pleasant scenes. The water is fresher and more plentiful, and the verdure is brighter. "But," says a traveller, "that which is most attractive is the novel and imposing forms of architecture that Nature has left to mark the history upon these still open plains. Long, wide troughs, as of departed rivers; long level embankments, as of railroad tracks or endless fortifications, huge, quaint hills, suddenly rising from the plain, bearing fantastic shapes; great square mounds of rock and earth, half-formed, half-broken pyramids—it would seem as if a generation of giants had built and buried here, and left their work to awe and humble a puny succession. The Black, the Pilot and the Church

Buttes are among the more celebrated of these huge monumental mountains standing on the level plain; but the railway track passes out of sight of them all except the Church Butte, which, seen under favorable lights, imposes on the imagination like a grand old cathedral going into decay, quaint in its crumbling ornaments, majestic in its height and breadth. They seem, like the more numerous and fantastic illustrations of Nature's grotesque art in Southern Colorado, to be the remains of granite hills that wind and water, and especially the sand whirlpools which march in lordly force through the air—literally moving mountains—have left to hint the past, and tell the story of their own achievements. Not unfitly, there as here, they have won the title of "Monuments to the Gods."*

Black Buttes, Wy. (794 miles), is a coaling-station, where coal of superior quality is found in abundance in veins 7 to 10 feet in thickness. This great coal-region, besides furnishing fuel for the road, is the source which supplies all towns along the *Eastern Platte Valley* and Omaha, and the facilities for furnishing it aids materially in the settling of the country.

Point of Rocks, Wy. (805 miles), **Salt Wells** (818 miles), and **Rock Springs** (832 miles), are small telegraph-stations in a desert of the same uninviting character.

As we approach *Green River*, the high bluffs on either side present an agreeable change from the country we have passed through. The long range of the Uintah Mountains are south of us, and the Wind River Mountains to the north.

At **Green River Station, Wy.** (845 miles), is the old fording place of the *Overland stage-line*. On the left, near the bank of the stream, can be seen the remains of a number of adobe buildings, where a city was laid out and built, but scarcely inhabited. The road moved on, and the town was a failure. The track crosses *Green River*, a rapid stream—the color of the water giving it its name. This stream rises about 200

* "The Pacific Railroad—open." By Samuel Bowles.

miles above the railway-crossing, and empties into the *Colorado River*, 150 miles below. The scenery along this river is said to be very grand, high cliffs rising on each side more than 2,000 feet; narrow gorges through which the stream rushes with great velocity; mountains covered with firs to their summits; all present wild but attractive scenes to the explorer. After crossing Green River the road advances along the west side of the valley, through cuts of slate which is found here in great abundance, and may some time prove profitable for export. The valley of the stream is on our right, and the high bare rocky hills close on our left. This is a fine field for the geologist, and days might be spent in collecting rare specimens which abound along the stream. Thirteen miles of heavy grade brings us to

Bryan, Wy. (858 miles), once a notorious town, which was the end of the road in September, 1868. Between the town and the hills, on the west, is *Black's Fork*, a tributary of Green River, which we follow for some distance. Bryan was a wild town while the freight was delivered here and shipped west, but one or two stores, a stage-office, two saloons, and a small eating-house, are about all that are occupied of the buildings that remain. The "dobeys" can be seen everywhere crumbling to decay.

The railway company has had some small repair-shops here, employing 200 men, but these are to be moved west, where coal is more accessible, and the *Sweetwater stage and freight line* is to be transferred to Green River, leaving Bryan without business or visible means of support. From this point a line of stages, carrying the mail, runs to the *Sweetwater mines*, 100 miles northeast; and, as that region has attracted some attention, we will leave our main route and give a description of it, and a few notes on the stage route through which we pass.

SWEETWATER MINING REGION.

Leaving Bryan on the stage in the morning, after the arrival of the eastern passenger-train, our road lies along the railroad for several miles, till turning to the right we commence to ascend the hills. The road is a single track, heavy

in some places with deep sand, worn through never-ending fields of sage-brush. Two hours' slow riding brings us to the summit of the hills, and looking westward we can see the track of the railroad for a great distance. The sun tinges the snow on the *Uintah Mountains* with gold, and the low mountains northward mark the valley at their base, through which runs Green River. The few trees along this stream, which we cross 20 miles out, look pleasant after the cheerless prospect we have passed. Seven miles after crossing Green River we strike the *Great Overland Emigrant Road*, a broad, smooth, level, race-track, as it appears, about 60 feet wide, with sage-brush on each side, about two feet high. From an elevated point one can see the road for miles in advance, like a broad ribbon, on the fields of sage. Crossing several small streams at which there are miniature stretches of pasturage, once welcome stopping-places to the tired pilgrim, we arrive at dark at a small log station, the third house we have seen since leaving Bryan. Here we remain for the night, the Indians being so troublesome that the stages travel only by daylight. A good night's rest, and plain but well-cooked meals, of which excellent coffee and juicy venison are the most enjoyable, fit us for another day's ride, and the keen mountain-air gives us new life as we jump in and rattle away toward the *Pass*. Occasionally a covey of sage-hens starts up, and a sneaking coyote slinks away as we drive rapidly along. Antelope, in herds of several hundred, are feeding on the scattered bunches of grass, and herds of black-tailed deer are often seen on the hills. On the left the *Wind River Mountains*, 30 miles away, wall in the view to the north, while a rolling, hilly, barren country stretches away to the south as far as the eye can reach. The high rocky hills of the *South Pass* ahead relieve the monotony of the ride, and, after crossing a small stream which flows from *Pacific Spring*, we turn eastward and the well-known opening through the mountains lies before us. This was a prominent place during the overland emigration, on account of its water and the grazing along the stream, but the tide of travel has left no trace behind, except

a few graves of those who had embarked on this ocean and been stranded and lost, and here in this solitude a few piles of stones mark the spot where all their hopes, cares, and visions of wealth, found an end, and they sleep quietly till the great awakening. Through the Pass and up the long ascent we proceed slowly till we reach the summit, where the waters flow eastward to the Gulf of Mexico, and west to the Pacific. A short ride brings us to the valley and crossing of the *Sweet-water River*; and over hills, past huge piles of rocks and clumps of pines, we arrive at

South Pass City, a mining town situated in a ravine, and numbering perhaps 250 houses. Several steam-mills are in sight, but for the present there is very little doing, and it is safe to say that not more than one house in twenty in any of these mining towns is occupied. Many who have invested in mills here have found that their capital was exhausted before they reached the main lead, which extends through this region, and have been compelled to stop operations. One mill which took out \$60,000 the past season still perseveres in sinking a shaft, which is down 200 feet. Everywhere along the hills are prospect-holes, deserted cabins, and hoisting-works, while the flumes in the valleys show where gulch-mining was carried on.

Atlantic City, four miles beyond, is another mining-camp, of perhaps a hundred houses, but presents the same dull appearance. If the ledge should be found by any of the present persevering miners, the whole region would start into renewed life.

Camp Stambaugh, a two-company military post, has been recently established, two miles from Atlantic, as a protection from the Indians, who have killed many of the miners. *The Reservation of the Snake or Shoshone Indians*, a peaceable tribe, is near the post. This region is well worthy a visit, and particularly interesting to those who have never visited a mining country; and the geologist could spend months here with pleasure and profit.

We will now resume our railway journey at the point from which we made this divergence.

After leaving Bryan Station the road follows the valley of *Black's Fork*, and about 12 miles out we cross the old Mormon trail, plainly defined, winding its way along the hills.

Granger, U. T. (876 miles), is the next station, and here we enter the Territory of Utah, and near here cross *Ham's Fork*, a small stream which rises to the northwest about 50 miles. The old road to Bridger tends to the left, and we follow up the valley of a small stream known as the *Muddy*. The broken hills on either side approach near the road here, and their sides are covered in places with a scrubby cedar (*Juniperus occidentalis*).

Church Buttes, U. T. (887 miles), and 888 from Sacramento, is an unimportant telegraph-station, receiving its name from the appearance of the Bluffs on the left of the track.

Carter, U. T. (904 miles), the next point, was once a place from which freight was hauled by teams to Montana and Idaho. Government freight for Fort Bridger, a military post on the old road, is shipped to this station. Winding along the valley, with the irregular hills on each side, we pass *Bridger Station* (913 miles). Beyond here, on the bank of the little stream, some deserted houses, on the right, mark the spot of an old ranche on the emigrant road, which ascends the hill beyond, to the *Quaking Asp Range*.

Piedmont, U. T. (928 miles), a small station in a narrow valley, comprises a dozen houses, and was headquarters for wood-cutters who were at work on the hills during the construction of the road. From here the road ascends rapidly, and is well guarded from snow by snow-sheds which occur very frequently.

Aspen, U. T. (937 miles), over 400 feet above Piedmont, is 7,463 above sea-level, and the highest point on this range of the mountains. From here we descend, winding around the southern base of the hills to *Bear River City*, which was built before the railroad reached here, and it was supposed that this would be a railway station, but the road passed on to Eranston. The old stage-road comes down the hill behind the town, and to the north and east rise hills with clumps of

scattered cedar. Coal-mines have been opened among the hills, within 40 feet of the track. The writer was there in November, 1868, when the town was at its height of business prosperity, and contained nearly 1,000 people of all classes. The 19th of that month was memorable as the occasion of the *Bear River Riot*, when the roughs incited some of the railroad graders, and attacked the town, destroying the jail and the printing-office of the *Frontier Index*, a newspaper which travelled along from town to town as the road progressed. After this the mob advanced on the town but were warmly received, seven of their number being killed, and many of them wounded. The total number of deaths in consequence of this foolish raid, in which whiskey had much to do, was fifteen. The road along here was for some distance constructed by Mormon contractors, and their masonry is acknowledged to have been well and faithfully done.

The road keeps on down the valley of the small creek, until we reach the *Bear River Valley*. Near the road was a well-built station, store, etc., of the Overland stage company, and some cultivated fields, irrigated from the river. This stream rises in the Uintah Mountains away to the south, and, watering a beautiful valley of the same name, flows into Salt Lake at Corinne, where it is a considerable stream.

Crossing Bear River, we descend westward and reach

Evanston, U. T. (955 miles), where there are extensive mines of coal of excellent quality, worked at a small expenso. The railroad company has erected shops here, and the men employed in them and in mining are building quite a respectable sized village.

Wasatch, U. T. (966 miles), has until recently been a lively station on account of the number of men employed there. During the building of the road, it was a base of supplies while the heavy work was going on.

Within this region, moving west, between Green River and Salt Lake Valley, we pass through five tunnels, aggregating nearly 2,000 feet. These tunnels are cut through solid rock, which never crumbles nor disintegrates from the action of the

atmosphere; consequently there is no necessity for arching them with brick, or protecting them from falling on passing trains.

Half a mile west we come to the second tunnel thus far met with. This is 770 feet long, and at its eastern end is a long stretch of trestle-work, over 70 feet high, and as the cars move slowly over it we have a view of the valley to the left. The road is made on the rim of the valley by cutting down the side of the hill; and a tiny stream on the left flows along watering a narrow strip of green sward.

Castle Rock, U. T. (975 miles), is a station at the head of *Echo Cañon* (6,240 feet elevation), and now the tourist feels interested in his approach to a region so often described as rich in grand and beautiful scenery.

These cañons, or ravines, of which there are very many in the Great West, are sudden depressions in the surface of the earth, sometimes of a vertical depth of thousands of feet. Nothing can be more surprising and more grand than the pictures presented in these strange passages. The effect, too, is always heightened by the unexpected manner in which the traveller comes upon them, as no previous intimation is afforded, by the topography of the land, of their proximity. These which we come across in entering Utah are enchantingly beautiful. They are narrow and rugged, with high perpendicular walls of red rock, with curious openings and fresh running streams, with pretty little farms scattered over the delightful landscape.

The *Echo* and *Weber Cañons* are two of the most magnificent sights along the whole Pacific route, and the tourist will be fortunate if he passes them by daylight. The rock-ribbed mountains on both sides rise to a grand and awful height. They are bare of foliage, except a stunted kind of pine-tree, and the tops are white with snow. The road winds around through all the devious turns of these cañons, and if there be an "observation car" attached to the rear of the train—as there generally is—the tourist will obtain a fine view of the scenery; or he will have an equally good view if he can persuade the engineer to let him seat himself on the pilot of the locomotive.

Whirling down the cañon we come to *Hanging Rock*, where, it is said, Brigham Young delivered his first sermon to the faithful, after arriving at Zion. Six miles from this place, a thousand feet above, are seen the ruins of the feeble fortifications set up when President Buchanan marched an army against the Mormons, but halted and went away without making any attack, leaving behind stores of provisions, wagons, and ammunition, which fell into their hands.

Seventeen miles from Castle Rock, after a descent of 433 feet, passing some rocks of great height, we turn to the right, and all at once come to

Echo City, U. T. (991 miles), a beautiful and romantic place upon which to build a town. Here were the railroad established headquarters for supplies, and the town for a while did a large business. From here up *Weber River* are considerable Mormon settlements, and for all time to come Echo, unlike some other railroad towns, will have an existence. Passing this station, with the river on our left, we come to the mouth of

Weber Cañon, U. T., about 5 miles below, where high rocky walls again confine the view. Any description would avail little toward giving an idea of the grandeur of the scene. Sometimes large clouds descend half-way down the mountain-sides, and one feels as if shut in from the outer world. The river's clear, dark-greenish waters dash and foam as they rush down their steep, rocky channel. The *Devil's Slide*, two parallel lines of rock on the left, extends from the base of the mountain to its summit, and is an object of wonder and interest. Mr. C. C. Fulton, the accomplished editor of the *Baltimore American*, in describing this spot, says: "Imagine a mountain 800 feet high, composed of solid dark-red sandstone, with a smooth and gradually ascending surface, to its very pinnacle, and only eight or ten degrees from being perpendicular. At the foot of this mountain the Weber River winds its devious course. From the base of the immense red mountain up its entire height of 800 feet is what is called the 'Devil's Slide,' composed of white limestone. It consists of a smooth white stone floor from base to summit, about 15 feet wide, as straight

and regular as if laid by a stone-mason with line and plummet. On either side of this smooth white line is what appears to the eye to be a well-laid white stone wall, varying in height from 10 to 30 feet. This white spectacle on the red mountain-side has all the appearance of being made by man or devil as a slide from the top of the mountain to the bed of Weber River."

The Weber River winds along through these immense mountain-ranges, and the engineering exhibited here is equal to anything on the Cheat River Division of the Baltimore and Ohio Railway (*described in ROUTE X.*). Crossing the river on a truss-bridge we suddenly find ourselves in total darkness, passing through a tunnel 550 feet long, cut in the solid rock at great expense, and a little farther onward we pass through another. The old emigrant road can be seen in places as it crosses from side to side; but the railroad for the greater part of the way is on the same track.

Weber Station, U. T. (1,007 miles), is near some Mormon settlements, whose low log-houses do not speak very highly of agricultural wealth, but persistent labor is rewarded with good crops of grain and vegetables. Here the road crosses the valley, and 12 miles below Weber we stop at

Devil's Gate Station, U. T. (1,019 miles), where the road is again between high rocks and lofty mountains. Just below the station is *Devil's Gate*, where the stream rushes through a narrow gorge. If the tourist can stop for a view of this wild scene, and climb to the top of the high knoll on the right, he will look down on a rush of waters 50 feet below him with a loud roar like a cataract, while the wall on the opposite side rises up to a great height. Passing over a bridge high above the stream now escaped from its confinement, he can look down on its foaming waters as they dash against the big bowlders in the channel. Three miles farther we emerge from grim battlements of rocks, and catch the first view of Salt Lake Valley as we near

Utah Station, U. T. (1,024 miles)—1,690 feet lower than Castle Rock where we entered this mountain-gorge and commenced our rapid descent.

For some time this station was the point where passengers left the railway and went by stage to Salt Lake. The amount of freight unloaded here at that time made business brisk, and the town of *Desert*, as it was called, promised to be a place of importance; but on the junction of the two roads being fixed at Ogden, and the *Utah Central Railway* built from there, its prospects of greatness vanished.

Ogden, U. T. (1,032 miles from Omaha, and 742 from Sacramento), is the end of the *Union Pacific Railway*, although that company built 52 miles farther, and for a while connected with the *Central Pacific Railway* at Promontory; but a mutual arrangement fixed Ogden as the junction, and where the connection should be made with the *Utah Central Railway*.

Ogden has no commercial importance. It has no churches; but there is here a resident Episcopal clergyman who conducts divine services, and there is a flourishing school. The Methodists also hold services here. The *Ogden House* is the principal hotel.

Supposing that every person travelling for pleasure will wish to visit the "desert home of the Mormons," we shall here leave the main road, and, after a ride of 36 miles in the cars of the *Utah Central Railway*, shall find ourselves at

SALT LAKE CITY.

Salt Lake City, the capital of the Territory of Utah, is 1,068 miles west of Omaha, and 916 miles east of San Francisco. It lies in a great valley, extending close up to the base of the *Wasatch Mountains* on the north, with an expansive view to the south of more than 100 miles of plains, beyond which in the distance rise, clear cut and grand in the extreme, the gray, jagged, and rugged mountains whose peaks are covered with perpetual snow. The highest of these mountains is 11,400 feet above the sea.

Adjoining the city is a fine agricultural and mining region, which has a large and growing trade. The climate of the valley is healthful, and the soil, where it can be irrigated, is extremely fertile. The tourist should spend at least one week in the city and its neighborhood.

The population of Salt Lake City by

the last census is 17,282—those born in the United States numbering 10,214, and in other countries 7,068. This, at first glance, seems to contradict the popular belief that the followers of Brigham Young have been recruited chiefly in foreign countries; but when the tables showing nativity of parents, the relative numbers of the sexes and the number of children, are prepared, this seeming contradiction may be explained.

The city covers an area of about nine miles, or three miles each way, and is handsomely laid out. The streets are very wide, with irrigating ditches passing through all of them, keeping the shade-trees and orchards looking beautiful. Every block is surrounded with shade-trees, and nearly every house has its neat little orchard of apple, peach, apricot, plum, and cherry trees. Fruit is very abundant, and the almond, the catalpa, and the cotton-wood tree grow side by side with the maple, the willow, and the locust. In fact, the whole nine square miles is almost one continuous garden.

From *Ensign Park* one of the finest views in the overland line is obtained.

The city is divided into blocks of ten acres, each block being divided into eight lots. These are only subdivided in the business and more thickly settled parts of the city. The blocks are divided into wards, of which there are 20, each having its meeting-house and bishop. The building material mostly used is sun-dried brick, covered with plaster, and the houses are generally of one story, covering much space. A few of the newer stores are built of stone, and are elegant and capacious within and without.

There are three hotels, the *Salt Lake*, *Townsend*, and *Revere Houses*, and several small boarding-houses and restaurants.

There are no street-cars or even omnibuses, except those which carry passengers from the railway station to the hotels. The Mormon mode of conveyance is by emigrant wagons drawn by mules or oxen such as one sees in pictures of "crossing the continent." A very few of the church dignitaries only have private carriages.

The *Theatre*, the chief place of entertainment, is a great building, gloomy-looking from the street, but the interior is handsomely finished in white and gold.

It is 172 feet long, 80 feet wide, and 40 feet from floor to ceiling. It seats 1,600 persons, and, in its arrangements and appointments, is considered the finest on the continent, outside of New-York City.

There are several public halls where concerts and other entertainments are given; but the chief amusement of the Mormons is dancing, and this is done principally in the school-houses or meeting-houses.

The *Tabernacle* is the first object to attract the eye as one approaches the city, although far removed from being imposing, or possessing any architectural beauty. It is of wood, excepting the 46 parallelogram pillars of red sandstone, upon which rests its immense dome-like roof. These pillars are nine feet deep, by three feet wide, and about 12 feet high, the space between them being filled up with doors and windows. The *Tabernacle* is the largest hall on the continent with a single-span "self-supporting roof." It is oval in shape inside and out, 250 feet long, and 150 feet wide, and will seat comfortably between 8,000 and 10,000 persons. The ceiling is 62 feet from the floor. The place is used for worship, lectures, and debates.

The *Tabernacle* organ is the largest ever built in the United States. There are only two larger in the country, both of which were brought from Europe. One of these is at Boston, and the other in Plymouth Church, Brooklyn. The Mormon organ has 2,000 pipes. It was built by an Englishman, Mr. Joseph Ridges. The woodwork is white mountain pine, stained a dark mahogany color.

The *Endowment House* is an inferior-looking adobe building, in which the Mormons receive their endowments from on high, where their baptisms for the dead are performed, and where their sealings for eternity, and many other of their sacred rites, are observed. No Gentile is allowed within its sacred walls.

The *Temple*, if ever finished, will be a magnificent building. The corner-stone was laid some eighteen years ago, and the foundation is now but little above the level of the ground. It will probably never be much higher. Millions of dollars have been raised in England toward its erection, and 20 years ago, before the corner-stone was

laid, solicitations were made for the stained glass windows, the painting, the seats, etc., and money is being solicited to-day for the same things. Only a few months since money was being subscribed for nails with which to put on the shingles.

The Mormons, as a religious body, are fast losing their footing. Schisms and divisions are common among them. They have three visible organizations in the city, each with its regular services: the Josephites, the Godbeites, and the orthodox Brighamites. The Godbeites are rapidly gaining in numbers. They are, for the most part, disaffected Brighamites, and are a powerful and influential party. Their organ is the *Salt Lake Tribune*, and they have recently built a separate meeting-house for worship.

[An interesting sketch of the rise and progress of Mormonism, by Mr. W. F. Rae, will be found in the chapter on Utah.]

St. Mark's Mission, of the Protestant Episcopal Church, is in a flourishing condition, holding regular services in *Independence Hall*, having a Sunday-school of 200 children, a day-school with 230, and a church edifice nearly completed. There are at present no churches in Salt Lake City, and *St. Mark's Church* will be the only building in it that can pretend to architectural beauty or finish. It is being built of red sandstone, handsomely cut, in the Gothic style, and will cost about \$40,000.

The Methodists have regular services in a hall, a flourishing Sunday-school, and a day-school.

St. Mark's School is the nearest approach to a free school in the Territory. The terms for instruction are reasonable to those able to pay, and free to those who cannot pay. There is an able corps of teachers, with Bishop Tuttle as rector, and pupils can pass a thorough academic course preparatory for college, including all the higher branches, Latin, Greek, and Hebrew. The school has 230 pupils, and many are turned away for want of accommodation. The building, with all its surroundings, is poorly adapted to its present purpose.

The Mormon school system is very deficient. The *Deseret University*, quite a recent institution, is a school where the

higher branches of education are taught, and where the church dignitaries and others who can afford it send their elder children. It is said the university has an able corps of teachers.

There is nothing like a respectable school building, with its separate departments and proper appointments, in the whole Territory. This university and Brigham's private school-house are the only ones that are intended especially for schools.

The Mormons have no regular system of public instruction like that so familiar to all in the United States. Teaching is taken up occasionally by any who may choose to give instruction in their ward meeting-houses, but the course never exceeds three months in a year. The terms, too, are high, and very many persons cannot afford to send their children to school at all. Consequently, it is not surprising that the education of the large majority of the population consists simply of reading and writing, and that even very imperfectly, while many others cannot even read and write.

The *City Hall* is a substantial building of red sandstone, with the doors and windows in front finished in oak graining. It is 60 feet square, and is surmounted by a clock tower. It contains offices for the mayor, recorder, and city treasurer; a court-room where the aldermen's and justices' courts are held; the city attorney's office, the Territorial Library, Council Chamber, office of the Adjutant-General of the Territorial militia, and chambers in which the Territorial Legislature meets.

The *City Prison* is in the rear. It is strongly built of red sandstone.

Temple Block, like the other blocks, as already stated, contains ten acres. It is surrounded by a solid wall, 12 feet high. Though not the centre of the city, it is the centre of the hopes of thousands who come to Zion for their salvation. It contains the foundation of the *Temple*, the old and new Tabernacles, and the *Endowment House*.

Brigham's Block, which is east of Temple Block, contains the Tithing House, the *Deseret News* office, Brigham's Bee-hive House, the Lion House, his private telegraph-office, and other offices, the

Museum, a private school-house, and various other smaller buildings, dwellings, shops, etc., the whole enclosed by a solid high stone wall, with close heavy gates.

The *Lion House* is so named from a figure of a lion over the front entrance, and the *Bee-Hive House* from a carved bee-hive in front, emblematic, respectively, of strength and industry. Some eighteen or twenty of Brigham Young's wives are living in these two houses. His first wife lives in the *White House*, which is within the same enclosure. Some of his other wives are living in different parts of the city and Territory.

There are no parks in Salt Lake City, and the public squares are simply vacant blocks, of which there are two or three, without trees or shrubbery. Neither are there any drives or walks. Indeed there is not a rod of pavement of any kind, nor a street crossing in the whole city, although the people here have been taxed enough almost to pave the streets with gold. The Mormons evidently do not believe in marring the simplicity of Nature by public improvements, so one must be almost suffocated with dust in summer, and wade through mud in winter.

The manufactories of Salt Lake City embrace a sash-and-blind factory, a steam-planing mill, a paper-mill, and some adobe-brick yards. There are two cotton-factories in the Territory, and ten woollen-factories.

The newspapers published in the city are the *Deseret News* and the *Salt Lake Herald*, formerly called the *Tidegraph*, both daily, and organs of the Brighamite faction. The *Salt Lake Daily Tribune*, as has been already stated, is the Godbeite organ.

The *Mormon Cemetery*, the only burying-ground, lies on the bench, to the northeast of the city. It is a barren and dismal-looking place, without grass, tree, or shrub. There are no walks nor drives, no handsome monuments, the majority of the graves being without headstones, and many without even a wooden slab to mark the spot where rest the dead.

Most of the Gentiles are buried at Camp Douglas, where they prefer their remains to be taken.

Camp Douglas is a post established by General E. P. Conner, in 1862, garrisoned by a few hundred militia. It is located 700 feet higher than, and two miles east of, Salt Lake City, on a sloping upland or bench, at the base of the mountains, and commands a fine view of the city, valley, and mountains. Thomas W. Haskins is post chaplain.

Corinne, U. T. (1,055 miles), the first station on the *Central Pacific Railway*, is a thriving place, and promises to be of considerable commercial importance as the great distributing point for the Montana trade. Virginia City, 360 miles, and Helena, 480 miles distant, are reached by Wells, Fargo & Co.'s daily line of coaches, which carry the U. S. mail, express matter, and passengers.

The recent excitement in Utah, consequent on the discovery of extensive silver-mines in the Salt Lake region, promises to make Corinne a very important place. A steamer of 500 tons' burden, called "*The City of Corinne*," has been launched to ply between Corinne and Black Rock, on the southwest shore of Salt Lake, a route of 70 miles, whence a railroad is projected southward through the heart of Rush Valley, East Cañon, Camp Floyd, Tintic, Levere, and Star districts, to Meadow Valley. This road will leave many of the mining districts but a few miles to the right and left.

The nearest mine to the steamboat landing is five miles, and others are thirteen, twenty, and various distances, accessible, however, and greatly in need of just such freighting facilities as "*The City of Corinne*" will afford. Corinne secures the trade and traffic of most of the silver-producing regions by this step, and the expenses will be much less than heretofore, when the ore has been hauled by teams from 30 to 50 miles over some of the worst roads in the West. The products of East Cañon, Tintic, Levere, and Piouch, will seek this line. What the ten thousand miners who will be at work in the silver districts will need of supplies, produce, and the results of their labor, will all go to this sole steamboat venture between the Missouri and the Pacific coast. The result will be a diversion of much of the business from Salt

Lake which has heretofore sought the railroad at that point. Corinne and Ogden are become masters of the situation, and, with both bidding to be the chief city of Utah, they promise in the long-run to get ahead of Salt Lake City.

A description of the silver-mines will be found in the chapter on Utah, in another part of the volume.

Resuming our journey, ascending and passing out of the Salt Lake Valley, we skirt the northern shore of the lake, cross *Bear River*, its chief tributary, until we come to *Blue Creek*, which crossing on a trestle-bridge, 300 feet long, taking our way through deep cuttings and heavy fillings, and rounding a sharp curve, we find ourselves at

Promontory Point, U. T. (1,084 miles), which is 700 feet above Ogden. This is a spot which will be regarded with much interest by the tourist as the one where the two companies building the railway, on the 10th of May, 1869, joined their tracks, and, with a golden spike, driven by a silver hammer into a rosewood tie, fastened the last rail connecting the Pacific with the Atlantic. The ceremony of driving the last spike was marked by an incident to which a parallel will be sought in vain among the many extraordinary feats of modern times. The hammer with which the blows were given was connected to a wire in direct communication with the principal telegraph-offices throughout the Union. Thus, the instant that the work was consummated the result was simultaneously saluted on the shores of two great oceans, and throughout the wide expanse of a vast continent, by the roar of cannon and the ringing of bells.

Lest any curious traveller should waste his time in seeking for the precious spike and the valuable sleeper, we may state that they were removed almost as soon as laid, and that pieces of ordinary wood and iron were substituted for them. But these, however, did not long remain intact. The hoarders of relics hacked the sleeper into splinters in the course of a few minutes, and attacked the last rail with a vigor which had the effect of rendering it worthless. The sleeper had to be renewed three times and the rail once in the course of a week. Even then,

credulous visitors were still busied in cutting mementoes of the "last tie."

The Great Salt Lake is so salty that no living thing can exist in it. The road skirts the north side of the lake, while the Mormon city lies east of the south end of it. It is about 45 miles in width and 126 miles in length, as quiet and placid amid its mountain barriers as the water in a basin. It has numerous islands on its bosom, one of which, called Antelope, is 15 miles in length. The water of this lake is so buoyant it is difficult to sink in it, and if allowed to dry on one's body the salt will fall off in scales. These islands would make magnificent summer resorts, and probably the day is not very distant when they will be occupied for that purpose, and little pleasure-steamers will be used to explore the recesses. After leaving Promontory and the borders of Salt Lake, we enter upon that extended plateau, about 60 miles in width and of the same length, known as

The Great American Desert, which expands over an area of about 60 square miles. Its whole surface is covered with a sapless weed, five or six inches in height, and is never known to grow any thing green that could be used to sustain animal life. The earth is a mixture of salt, and there is every indication that in times long past it was a part of the bed of Salt Lake, bounded on one side by the Sierra, and on the other by the California Mountains. The only living things found upon it are lizards and what are called jackass rabbits; the only landscape feature, dry, brown, and bare mountains. This desert probably has no agricultural future. In dry weather the traveller has to expect blinding showers of alkali-dust. Passing through *Rozel* and *Monument*, uninteresting stations, we come to

Elkton, W. T. (1,123 miles). A daily line of stages for Idaho and Oregon starts from this point, carrying passengers through to Boise City in two days; Walla Walla, four days; Portland *via* Umatilla, on the Columbia River, five and a half days.

Matlin, W. T. (1,137 miles), is about midway of the Great American Desert, and is worth mentioning for no

other reason. *Terrace* (1,153 miles), and *Bovine* (1,164 miles), and other small settlements in the wilderness are passed, and we soon reach

Toano, Nev. (1,214 miles), the commencement of Humboldt Division, which extends to Winnemucca, 237 miles distant. This place is now only an eating-station; but promises to become the important diverging point from the railroad, for the following-named rapidly-developing mining districts, viz.: Deep Creek, Egan Cañon, Ely, Kern, Kinsley, Pahrnagat, and Patterson. A stage-line runs from Toano to Egan Cañon, 90 miles to the south. It is to be extended to Ely District, 225 miles, where the *Pioche* mines are being worked. Ten miles from Toano we come to

Pequop, Nev. (1,224 miles), which divides the desert from Humboldt Valley, and where we commence descending a long grade until we reach the Sierra Nevada Mountains.

Otego (1,230 miles), a signal-station, *Independence* (1,236 miles), *Moor's*, 1,242 miles), and *Cedar* (1,244 miles), are passed, and we stop at

Wells, Nev. (1,250 miles), an unimportant place in itself, but of interest as being in the neighborhood of rich silver, copper, and lead mines discovered in the latter part of 1870. Smelting-works have been erected, and, as the district is well supplied with wood and water, it is likely to attain some prominence.

Humboldt Wells. In the neighborhood of Wells also, situated in a lovely valley, are the *Humboldt Wells*, a favorite resting-place with immigrants before the building of the Pacific road. There are about twenty of these wells or springs scattered in short distances from each other. Although within 200 or 300 yards of the road, these are almost hidden from the view of the tourist by the tall, rank grass that surrounds them. The company obtains its supply of water from them. It is supposed that they are craters of extinct volcanoes; they have been sounded to a great depth, but no bottom has been found. The Humboldt Wells are one of the greatest curiosities in the Humboldt Valley, and should by all means be visited by the tourist.

The Humboldt Valley. Leaving the high, broad, barren, and forbidding valleys or plains through which our route has lain since leaving Salt Lake, the traveller hails with delight his approach to the fertile Humboldt Valley, through which we are now passing, following the course of the *Humboldt River*. This is the old immigrant route across the continent. After passing through the Great American Desert the sight of a running river and luxuriant vegetation is most enjoyable. The Humboldt River freshens and enriches this region. It has its source in the mountains of that name, and flows westward for about 250 miles. Along its banks is a thick fringe composed of willow-trees and a variety of shrubs. It is characteristic of this part of the country that, as soon as the land is irrigated, almost any plant or vegetable can be grown upon it. The climate is genial. If it were not for the lack of rain, millions of acres might be at once brought under cultivation. Hence the extreme value of the tract adjacent to a stream of water large enough to supply all that is required for the purposes of irrigation. When the immigrants formerly traversed this route, they timed their halting-places so as to be within easy reach of a river. In many places there are numerous pools of water; but for the most part these are so strongly impregnated with alkali as to be even more undrinkable than sea-water. The alkali water burns the tongue, inflames the throat, and irritates the stomach.

Continuing our way through the valley, leaving behind us *Tulasco* (1,258 miles), *Deeth* (1,271 miles), *Halleck* (1,284 miles), hidden from view by intervening mountains, and *Peko* (1,287 miles)—all unimportant stations—we cross the *North Fork* by a substantial bridge, and soon reach *Osino* (1,297 miles), where the valley suddenly terminates. Ten miles' ride through a grand and wild region of river, cañon, and mountain, brings us to Elko.

Elko, Nev. (1,307 miles), is one of the most important railway stations between the Rocky and Sierra Nevada Mountains. It is the capital of Elko County, and supply-station for numerous outlying mining districts, among which may be mentioned White Pine, Cope,

Bull Run, Wyoming, Bruno, Murray, Railroad, Mineral Hill, and Eureka. With little more than a year's growth, Elko has already a population of 5,000; contains some 150 stores, groceries, and restaurants; three extensive freight-depots and forwarding-houses; a first-class hotel, at which railway passengers get their meals; two banking-houses, two newspapers, a spacious court-house, and a flourishing school. One mile from town are located mineral springs fitted up for bathing purposes, and possessing remarkable healing properties, and of any temperature desired. Some idea can be formed of the amount of business transacted in Elko, from the fact that during the busy season about \$30,000 worth of passenger tickets are sold per month at the station, and \$5,000 per day is paid for freight.

Moleen, Nev. (1,319 miles), is only a side-track. Before reaching the next station we cross *Maggie's Creek*, so named after a pretty little Scotch girl, pet of a band of immigrants who many years ago passed this way.

Carlin, Nev. (1,330 miles), is a rising town, and aspires to rival Elko for the White Pine trade. It is a point of departure from the west for Idaho. For nearly 200 miles to the west of this place the scenery continues to be monotonous, consisting of wide barren plains bordered by mountain-slopes. The Humboldt River, with its banks fringed with shrubs and plants, and the land for some distance on either side affording grazing-ground for herds of cattle, alone give a slight variety to the scene. Now and then a prairie-wolf slinks aside as the passing train startles it from its lair. More than one rude monument may be seen, indicating the spot where a foul murder had been perpetrated or a bloody combat had been waged. It was in this locality that the Indians made a savage onslaught on those engaged in constructing the line, murdering, scalping, and plundering several white men.

Palisade, Nev. (1,339 miles), is the most important point between Ogden and Reno; it is the distributing point for Mineral Hill, Eureka, Spring Valley, Secret Cañon, Grantsville, and other districts south of the road. From this

place stages take their departure from White Pine and neighboring districts. It is near this station that we see *The Pulisades* in their grandeur—the mountains rearing their heads more than a thousand feet in height. Crossing the river to the south bank, we pass *Cluro* (1,350 miles), a side-track, make our way through *Hot Springs Valley*, where there is a huge crater full of steaming sulphur-water, and reach *Be-o-wa-we* (1,358 miles). Ten miles from here is *Shoshone*, and the next station is

Argenta, Nev. (1,379 miles). This is the most convenient point to the celebrated *Reese River mines*, and is a place of some importance. Coaches connect here with Austin (90 miles), and Belmont, 175 miles distant. Austin used to be a promising mining district, and had some five or six thousand inhabitants. It was the forerunner of White Pine and the successor of "Washoe;" but now its glory has faded.

The traveller, in passing through Nevada, does not see the agricultural or mineral resources of the State, as the mines of White Pine, Eureka, Reese River, Mineral Hill, and many others of less importance, lie from 30 to 150 miles south of the road; and Cope, Bull Run, Bruno, etc., lie north of the road. There are many valleys, both north and south, which are susceptible of cultivation, and which can be made to produce grains and vegetables of every kind. They also afford grazing to thousands of cattle and sheep. These are unseen by the traveller by rail; the chief features which attract his attention are the ant-hills and sage-brush, which give to the country a dreary and forbidding appearance very uninviting to the tourist. The town of Eureka, 80 miles south of the road, in November, 1869, numbered 13 inhabitants; it now has about 2,500 prosperous and industrious miners. One company alone—"The Eureka Consolidated"—has shipped 3,000 tons of base bullion. The Buttercup and other companies are doing a large and prosperous business, with a bright prospect for future success. Further information concerning the mines of this region is given in the chapter on Nevada.

Battle Mountain, Nev. (1,391

miles), takes its name from the mountain on the right of the track, the scene of a bloody conflict between two Indian tribes. We pass between the *Trinity Mountains* on the north, and the West Humboldt on the south, through a mining district of much promise. Near here *Rock Creek* flows into the Humboldt, swelling the waters of that mysterious river, which we now lose from view as it sneaks off among the hills and dies in the sands. Rich veins of copper have been discovered in the valley of Rock Creek.

Stone House, Nev. (1,410 miles), is remarkable for nothing but its excellent water, and its old stone trading-house. We pass *Iron Point*, 12 miles westward, and reach

Golconda, Nev. (1,434 miles), the outlet to the Gold River mining district. In the neighborhood of the station are more hot springs. *Tule* (1,445 miles), a place of no importance, is passed, and we come to

Winnemucca, Nev. (1,451 miles), where the Truckee Division commences, and where the railway company has large workshops and a round-house. Daily coaches start from this place to Boise City, Paradise, Camp McDermott, Battle Creek, and Silver City. Large quantities of freight are also reshipped here for these points and parts of Montana.

Seven small and unimportant signal and side stations are passed, when we find ourselves encompassed by the *Great Nevada Desert*. *Granite Point* (1,533 miles), and *Brown's* (1,541 miles), are left behind. From the last-named station there is a fine view of *Humboldt Lake*, whose waters mingle with those of the Carson about 10 miles distant, and together disappear in the sands. Passing innumerable hot-springs, and leaving in the rear *White Plains*, *Mirage*, and *Desert*, we reach

Wadsworth, Nev. (1,587 miles), the beginning of the *Sacramento Division*. The railway company has extensive workshops here, which, together with being the reshipping point of supplies for Fort Churchill and several mining camps, gives it the little importance of which it can boast. We are now beginning the ascent of the Sierra Nevadas. The wearying sight of plains covered

with alkali and sage-brush is exchanged for picturesque views of mountain-slopes, adorned with branching pine-trees, and diversified with foaming torrents. This is a gratifying relief, as well as a fascinating prospect. An anecdote is told of a lumber-man, who journeyed from his native State of Maine to seek his fortune in the State of California. He was extremely taciturn and depressed in spirits during the journey across the plains. When these mountains came in sight, and his eyes rested upon the familiar pine-trees, he gazed earnestly for a moment, then, rising to his feet, exclaimed, "Thank God, I smell pitch once more;" and then, sinking back into his seat, he wept for joy.

Reno, Nev. (1,622 miles), the last halting-place of importance during the westward journey through Nevada, is named after General Reno, killed at South Mountain. It is on the *Truckee River*, about 5 miles from the base of the Sierra, and within a few miles of *Virginia City* and *Gold Hill*, the headquarters of the miners who work the numerous silver and gold mines in this district. *The Great Comstock Lode* lies between these two towns, which are built along the mountain-side, upon the crust of the great silver-mine of America, with open depths beneath of from 500 to 1,000 feet, and more miles of streets below than above. Stages run daily between Reno and Virginia City. Reno is the depot of the transshipment of freight and passengers for Virginia, Gold Hill, Carson, and Washoe Valley, south, and Honey Lake, Sierra and Long Valleys, north. It is, also, the northern terminus of the proposed *Virginia & Truckee Railway*. There is a fine grain-growing country for many miles around the city.

Taking our way from Reno through deep cañons, heavily timbered with pine and other evergreens, we pass *Verdi* (1,632 miles), and *Boca* (1,643 miles). At a short distance east of the latter place we leave Nevada behind, and enter the State of California. The ascent now becomes very steep, and two locomotives are employed to draw the train. At short intervals there are strong wooden sheds to guard the line against destruction from

snow-slides. These sheds, which are very much like tunnels, have been constructed at great expense, and in a solid manner. They have the drawback of interrupting the view of some of the most romantic scenery on the line. The glimpses one gets are just enough to tantalize and not prolonged enough to satisfy. Eight miles west of Boca is Truckee.

Truckee, Cal. (1,656 miles), which has well been called the Lake George of the Pacific, is on the Truckee River. It is substantially built, and contains some 6,000 inhabitants. There are 21 saw-mills in the neighborhood. Excursionists to Donner Lake and Lake Tahoe leave the railroad here.

Stages for *Donner Lake*, two and a half miles distant, await the arrival of each train to transport passengers free to the Grant House. The view of the lake from the station is most charming, presenting a vast sheet of water picturesquely situated in a gorge of the Sierras. The neighborhood of Donner Lake was once the theatre of a terrible tragedy. A number of immigrants travelling to California, in 1846, were overtaken by the snow within eight miles of the lake. The party was composed of men, women, and children, numbering eighty in all. They were blocked in by snow-drifts and were compelled to encamp and wait for the return of spring. Long before the winter was over and gone, their stock of provisions was exhausted, the cattle had all been killed and eaten, and even the hides had been devoured by the half-famished party. Then came the bitter struggle between absolute starvation and a resort to cannibalism. The desire to live triumphed over every other consideration, and the bodies of the dead became the sustenance of the survivors. While this horrible tragedy was being enacted, an event happened which has given rise to much speculation among the believers in supernatural occurrences. A hunter, named Blount, living in California, beheld in a dream the situation and condition of the suffering party. The impression made on him was so intense that he mentioned the circumstance to other hunters who were well acquainted with the region around Donner Lake. They told him that his description tallied with

the reality. This intelligence had the effect of making him resolve upon doing what he could to rescue the snow-bound immigrants. Being joined by others he went to their rescue, and had the satisfaction of saving nearly thirty out of the eighty. The survivors were frostbitten and crippled; but their physical condition was less deplorable than their mental state. They had lived upon human flesh till they had acquired a liking for it. One of them was detected smeared with blood and furtively roasting a woman's arm, after the supply of other food was ample. Such a story furnishes confirmation of the saying that truth outstrips fiction.

Donner Lake is already a favorite summer resort for Californians, and a type of a series of grand lakes along the Upper Sierras. *Lake Tahoe*, an Indian name, signifying "big water" (pronounced "Tah-oo" by the Indians, and "Tahoe" by Californians) is 12 miles south of Truckee, from which it is reached by a splendid road, along the river-bank, under the shade of beautiful trees or across rich meadows. Excursions may be made around this beautiful lake in carriage, on horseback, or by steamboat (see, also, chapter on California). A day or two spent at Tahoe and Donner Lakes will well repay the tourist, who will find never-ending attractions in the many beauties of this mountain-range. The noble forests, the castellated rocks, the wedded summer and winter, the dry pure air, the mosses, the flowers, and mountain-fruits, will all combine to remind him that he is, indeed, in the famed Golden State. (See APPENDIX.)

From Truckee to the coast is one grand, continuous panorama, although those who have crossed the Sierras, in the stage, either by the Placerville route or by the Henness Pass, declare that the traveller loses half the fine scenery by travelling by rail. It is certainly very annoying that for the next twenty miles or more the tunnels and snow-sheds almost shut out from view the grand mountain scenery on both sides of the road. A fifteen miles ascent brings us to

Summit Station, Cal. (1,671 miles), which, although the highest point on this line, is not so high as Sherman Station on the Union Pacific. It is 7,042

feet above the level of the sea. This represents not the altitude of the Sierra Nevada range, but only the elevation of this mountain-pass. Above the station the peaks of the mountains tower cloudward. The scene is one of indescribable grandeur, and on reaching this elevation, one is bound to admit that the railroad passage over these mountains is the greatest triumph of engineering skill and labor on the whole line. The track going west ascends 2,500 feet in 50 miles, and descends 6,000 feet in 75 miles. There is over a mile of tunnels on the route, and a million dollars was spent in blasting-powder alone for the construction.

From Summit Station to Sacramento, the distance is 104 miles. Between these places the descent from a height nearly half as great as that of Mont Blanc to 56 feet above the sea-level has to be made. The line is carried along the edge of declivities stretching downward for two or three thousand feet, and in some parts on a narrow ledge which has been excavated from the mountain-side by men swung from the upper parts in baskets. It is thus at *Cape Horn*, a point grand and imposing in the extreme. Five or six miles from this place, at an altitude of 2,450 feet, is

Colfax, Cal. (1,722 miles), a place of considerable prominence, being the point of departure for Grass Valley and Nevada. The altitude of the station is 2,450 feet. There are some prosperous quartz-mines in the neighborhood. Daily coaches connect Colfax with Iowa Hill, 12 miles, Grass Valley, 13 miles, Nevada, 17 miles, North San Juan, 29 miles, Camp-tonville, 41 miles, Forest-Hill City, 60 miles, and Downeyville, 75 miles distant.

Auburn, Cal. (1,740 miles), the next station, a pretty and prosperous settlement of about 1,000 inhabitants, is the capital of Placer County. It is surrounded by a region containing many rich placer and quartz mines. The cars connect with stages here for Coloma, Placerville, and Georgetown.

Alabaster Cave.—About 8 miles southeast of Auburn, on Kidd's Ravine, about a mile above its junction with the north fork of *American River*, is the remarkable *Alabaster Cave*, which is thus described by its first explorer, Mr. Gwynn,

in the *Sacramento Bee*, August 19, 1860. He says: "Wonders will never cease. On yesterday, we, in quarrying rock, made an opening to the most beautiful cave you ever beheld. On our first entrance, we descended about 15 feet, gradually to the centre of the room, which is 100 x 30 feet. At the north end there is a most magnificent pulpit in the Episcopal Church style that man ever has seen. It seems that it is, and should be called, the 'Holy of Holies.' It is completed with the most beautiful drapery of alabaster sterites, of all colors, varying from white to pink-red, overhanging the beholder. Immediately under the pulpit there is a beautiful lake of water, extending to an unknown distance. We thought this all, but, to our great admiration, on arriving at the centre of the first room, we saw an entrance to an inner chamber still more splendid, 200 x 100 feet, with most beautiful alabaster overhangings, in every possible shape of drapery. Here stands magnitude, giving the instant impression of a power above man; grandeur that defies decay; antiquity that tells of ages unnumbered; beauty, which the touch of time makes more beautiful; use exhaustless for the service of man; strength imperishable as the globe, the monument of eternity—the truest emblem of that everlasting and unchangeable, irresistible Majesty, by whom, and for whom, all things were made."

Leaving Auburn, we pass *Newcastle* (1,745 miles), *Rocklin* (1,754 miles), where the railroad company has a machine-shop and round-house, substantially built of granite, of which there is abundance in the neighborhood, and stop at

Junction, Cal. (1,758 miles), an eating-station. The Central Pacific connects here with the *California & Oregon Railway*, which now connects with Portland on the Columbia River (see chapter on California). Passengers for Northern California and Oregon change cars here.

Seventeen miles takes us through Antelope and Arcade, unimportant stations, bringing us into the low valleys, and so we reach Sacramento, the capital of California.

Sacramento, Cal. (1,775 miles), is the most remarkable city in the State—but is less remarkable for what it is than

for what it has survived. More than once, fires and floods have destroyed it, and impoverished its inhabitants. A great inundation invaded it in 1851-'52, and it was deluged by a break in the American River levee in 1861-'62. The citizens, however, have never lost heart; they rebuilt their ruined dwellings and remade the devastated streets. On each occasion, the city became more beautiful and more commodious. At present, the entire city is in process of transformation. All previous efforts having proved futile to protect the locality from inundation when the rains flooded the surrounding plains, and the snow melted in the distant mountains, a new and more venturesome course was relied upon, and has since been pursued. The expenditure upon embankments was suspended, and the elevation of the city to a height ten feet above its original level was begun. Some of the streets have been entirely raised to the projected level, and others are in course of being elevated to a corresponding height.

Sacramento is the principal railway centre of the State. It is situated in the midst of a prosperous agricultural region, but owes its importance mainly to its fine commercial position, being situated at the head of tide navigation on the Sacramento River, and being the terminus of the *Central Pacific, Sacramento Valley, California & Oregon*, and *California Pacific Railways*. The works of the Central Pacific Railway, the most important west of Omaha, are located here. Several hundred men are employed in constructing cars, in putting together and repairing locomotives. Other industries are carried on successfully. Three flour-mills, capable of supplying 1,200 barrels of flour daily, are at work within the city bounds. A woollen-mill has just been built, and a company has been constituted for manufacturing sugar from beet-root.

In size, Sacramento is the second city in California, and has a population of about 20,000.

The *State-House* or Capitol, is an imposing-looking building. The *Yolo Bridge*, 800 feet long and 28 feet wide, spans the Sacramento River opposite I Street. Sacramento has good schools and churches; and shade-trees and shrubbery, surround-

ing the private residences, impart an attractive and homelike appearance.

At Sacramento, where the river of that name is joined by the American River, the united streams form a broad but shallow sheet of water. Not far from this point the memorable discoveries of gold were made in 1848. It is not true, as is supposed by many, that this was the first time the existence of gold in California had been demonstrated. Many years prior to these discoveries the Indians were in the habit of bringing small parcels of gold-dust from the interior of the coast, and selling them to the masters of the vessels which then came for cargoes of hides.

As already stated, the western terminus of the Central Pacific Railway is at Sacramento. This city occupies the place at one end of the line which Omaha does at the other. Just as several routes lead from the South and East to Omaha, so are there more routes than one between Sacramento and San Francisco. For the third time is the traveller embarrassed by variety. He may select one of two railways: a short-cut railroad to Vallejo at the head of the bay, with a 20-mile ferriage; or the Pacific Railway's proper prolongation around through Stockton to Oakland, or he may elect to take the steamer. His ticket gives him the option of a land or water journey. The difference in time is trifling. The California Steam Navigation Company's steamer leaves Sacramento at two o'clock in the afternoon, arriving at San Francisco at ten o'clock the same night. The journey from Sacramento to San Francisco is very pleasant, but without special interest, being for the most part through the highly-cultivated valleys of the Sacramento and San Joaquin.

Brighton, elevation 50 feet (1,780 miles), the first station on the *Western Pacific*, is passed, and *Florin* (1,784 miles), in the neighborhood of which are numerous windmills. We leave behind us *Elk Grove* and *McConnell's*, unimportant stations, and *Galt* (1,802 miles), from which stages leave for the celebrated *Calaveras Big Trees*, 70 miles distant (described in the chapter on California).

Mokelumne Hill, Cal. (1,810 miles), is a thriving settlement of about

1,500 inhabitants. It was one of the earliest mining towns in California. Placer mining is still carried on in the deep banks and flats in the neighborhood. A line of stages connects it with Stockton, *via* San Andreas.

Just before coming into Stockton, the next station, we pass on the right the *State Insane Asylum*, a large and costly building, standing in its own grounds of 100 acres.

Stockton, Cal. (1,823 miles), is the commercial mart of San Joaquin Valley and the southern mines, and is the head of tide navigation on San Joaquin River. It occupies a level site, and is substantially and compactly built, with handsome, wide streets and public buildings which speak of enterprise and taste. The population is about 12,000. The city is surrounded by the most extensive and productive wheat-growing lands in the State. During 1867, 864,233 bushels of wheat were shipped from here to San Francisco, and the entire agricultural produce exported from Stockton during the same period amounted to \$2,234,119. An artesian well near the centre of the city supplies 360,000 gallons of water per day, which rises 9 feet above the grade of the city.

Stockton is connected, by railway, with Sacramento on the north, Oakland on the west, San José on the southwest, and a railway is projected to connect it with Visalia on the southeast, and steamers run daily to San Francisco. From this point tourists take stage for the *Big Trees of Calaveras*, *Yosemite Valley*, *Mariposa*, and other places of interest in the eastern and southeastern portions of the State. (See chapter on California.) A good view of *Mount Diablo* (see chapter on California) is had at Stockton.

Lathrop, Cal. (1,831 miles), is the junction of the *Visalia Division of the Central Pacific Railway*, a new route to the Yosemite Valley and the Big Trees (see chapter on California). At *Wilson's Landing*, near this place, on February 1, 1870, the Central Railway Company commenced laying the track of a branch road up the St. Joaquin Valley. At present writing (May, 1871) the road is completed to Modesto, 20 miles distant.

Four miles beyond Lathrop we cross

the St. Joaquin River, on a draw-bridge, and come in view of the *Contra Costa Mountains*. A short ride now brings us to *Banta's* (1,839 miles).

Ellis, Cal. (1,844 miles), the next station, lies in a beautiful valley. Fourteen miles to the southeast are the Corral Hollow coal-mines, connected by rail with this place. The grade from the last station has increased 46 feet, and as the ascent is becoming more and more difficult, on leaving Ellis, an additional engine is attached to the train. At *Midway* (1,850 miles), the elevation is 357 feet. The route is now through bluffs of heavy sand and deep cuttings. We obtain a view to our right of the old wagon-road, and, still ascending, wind along a tortuous path among cañons and bluffs, pass through the tunnel of *Livermore Pass*, and come out to find ourselves soon at *Altamont* (1,858 miles). Elevation 740 feet. Leaving behind us *Pleasanton* (1,872 miles), elevation 351 feet, we arrive at

Niles, Cal. (1,884 miles). On our journey from the Livermore Pass, we have been rapidly descending, and at this station the elevation is only 86 feet. We are now in the beautiful and fertile Alameda Valley. Southward, 7 miles by rail, are the celebrated *Warm Springs* of Alameda County (*see* chapter on California).

Decota, Cal. (1,886 miles), is a pretty village of suburban residences. On a clear day the city of San Francisco (26 miles distant) can be seen from this station.

After passing *San Leandro* (1,899 miles), we arrive at *Simpson's* (1,903 miles), where the train stops, and, to guard against accidents, crosses the track of the *San Francisco & Alameda Railway*. Four miles to the left is the town of Alameda.

Alameda is a pleasant village of some 1,500 inhabitants, on the eastern shore of San Francisco Bay, about 2 miles from Oakland, and 12 miles from San Francisco. It is the western terminus of the *San Francisco & Alameda Railway*, and connects with San Francisco by ferry-boats as well as by rail, and with the *Central Railway*, at *Simpson's* and *Haywood's*, 10 miles distant. It is cele-

brated for its beautiful groves of oaks, and many fine parks, of which the "Encinal" is the largest and most frequented.

Two miles travel from *Simpson's* brings us to *Brooklyn*. We are now fast reaching our goal, and, crossing a bridge, pass along the edge of the Bay of San Francisco, and soon find ourselves running slowly under the beautiful oaks in Oakland, the rural suburb and school-house of San Francisco.

Oakland, Cal. (1,910 miles), is the principal town on the eastern shore of San Francisco Bay, almost directly opposite "The Golden City" itself. The city owes its name to its magnificent groves of live oaks, in which it was originally built; but it has now grown far beyond their limits, and is rapidly expanding in a northerly direction. These trees are not merely ornamental, but really subserve a useful purpose for parts of the town, in screening them from the fierce winds that in the summer come through the gap of the Golden Gate, and to the force of which Oakland is especially exposed. The population is about 11,000. Oakland is noted for its many fine schools and academies. Among them are the *University of California*, temporarily located here while its new "earthquake-proof" building, erecting in Berkeley, four miles distant, at the base of the Contra Costa Mountains, is being finished; the State University School, the Oakland Military School, the Female College of the Pacific, the Oakland Female Seminary, and the convent of "Our Lady of the Sacred Heart."

The *University of California*, now (1873) in its fourth year, consists of various colleges, namely, College of Arts, College of Letters, and professional and other colleges. The following colleges have already been organized: State College of Agriculture, State College of Mechanic Arts, State College of Mines, State College of Civil Engineering, State College of Letters, and State College of Medicine. The first four named are colleges of arts. Each college confers a proper degree at the end of the course upon such students as are found, upon examination, to be proficient in the studies of the course. All instruction in the undergraduate departments of the uni-



MAP OF SAN FRANCISCO

To accompany Appleton's Hand-Book
of Travel. Western Tour.

Circles $\frac{1}{4}$ mile apart.—Centre, Portsmouth Square.

--- Ward Lines
— Rail Roads
— Omnibus Lines



versity is free. In the College of Medicine the lecturers receive the usual fees. The university is for the benefit of the people of the State.

The *State Asylum for the Deaf, Dumb, and Blind*, is an imposing-looking building near Berkeley, a short distance from the university. It is constructed of stone, is three stories high, and stands 300 feet above the bay, of which it commands a fine view. Potter's gardens are an attractive feature of Oakland. The city is well lighted with gas, has broad, well-paved streets, and has a good supply of water from a creek five miles distant. It has numerous churches, supports three daily newspapers, and has several horse-railroads. The drives around Oakland are very beautiful, being equal, in wild and romantic scenery, to those of San Francisco, and good roads penetrate the surrounding country in every direction.

Lines of ferry-boats, even larger than those of the Brooklyn and Jersey City ferries, run across the bay, and in the morning and evening they are equally crowded with passengers. The distance across is five miles, and, there being extensive flats in front of Oakland, the railroad wharf at which the boat lands is already extended out nearly a mile from the shore to deep water. The company is endeavoring to get the Government to cede to it *Goat Island*, which lies precisely halfway between San Francisco and Oakland, on which it desires to erect a grand depot, and continue its wharf to the island. There being deep water all around the island, it could here have wharves for the accommodation of China and India vessels, which, it is anticipated, will soon use this highway across the continent to transship their goods to the East as well as to Europe. The citizens of San Francisco are opposed to the cession, and the scheme seems to be defeated for the present.

Our train passes through the city, two miles to *Oakland Point*, where we ride over the immense pier lately built by the Central Pacific Railway Company, for more than two miles and a quarter over the bay, to the ferry-boat which conveys passengers and freight to the city of San Francisco at the foot of Second Street, from which we are now three miles distant. This wonderful pier, or rather

wharf, is on the east side of San Francisco. It is 11,000 feet long, and runs out to a depth of 24 feet at low tide, and of 31 feet at high tide, having twelve railroad tracks upon its last 1,000 feet, a wide carriage-way, a passenger depot and railroad-offices, warehouses, and outside storage for 40,000 tons of grain or other merchandise, and three large docks, one of which affords ample space for five of the largest steamers or clippers afloat. The piles used, where the water deepens, are 65 feet long, and are 42 to 54 inches in circumference. The main wharf is 800 feet wide at the extreme or western end, and on it are pens for 500 cattle, two immense warehouses (one 50 × 500, another 50 × 600), with the passenger depot, 70 × 305 in size.

In passing over the wharf, we obtain a good view of the bay. To the right, in the distance, we see the mountains of Marin County, the loftiest of which is *Mount Tamalpais*, 2,000 feet high. (See chapter on California.)

SAN FRANCISCO.

THIS large and flourishing city, the metropolis of the Pacific coast, is situated on the western side of the Bay of San Francisco, at the north end of a peninsula formed by the Pacific Ocean on the west, and the Bay of San Francisco on the east, in latitude 37° 48' N.

The early history of San Francisco is interesting on account of the rapid growth of the place. The first house was built in 1835, when the village was called *Yerba Buena*, which in Spanish signifies *good herb*, so named from a medicinal plant growing in abundance in the vicinity. In 1847 this was changed to San Francisco, and in 1848, the year that gold was first discovered in California by the white settlers, the population had grown to 1,000. The influx from the East then commenced, and in December, 1850, the population was about 25,000. From this small beginning it has steadily increased, with some temporary drawbacks, until in 1860 the population was 56,802, and in 1870 it reached 149,482, including about 20,000 Chinese and about 1,500 negroes, and exclusive of a floating population of about 8,000. As an illustration

of the extent of the business of the city, it may be stated that the manufacturing establishments now in operation in San Francisco number upward of 800, employing a capital of \$17,000,000, consuming annually material of the value of \$23,000,000, and producing goods worth \$45,000,000. In three months of 1871, San Francisco imported 10,700,304 lbs. of rice, 15,936,865 pounds of sugar, 2,766,196 pounds of coffee, and 883,742 of tea direct from the Pacific. In 1870 it exported 15,000,000 pounds of wool. "Other things," says a traveller,* "than the increase of the population and the enlargement of the city have made the growth of San Francisco an event without a parallel, either in America or in any other quarter of the habitable globe. Its name had become synonymous for all that was most shameless in profligacy, for all that was basest in depravity, for all that was wanton and brutal in ruffianism. In the open day men were murdered with impunity. At night the property of the citizens was at the mercy of the lawless. The scum of Polynesia, desperadoes from Australia, bullies and blackguards from the wild State of Missouri, Spanish cut-throats from the cities of the Pacific coast, dissolute women and reckless adventurers from the slums of Europe, congregated in San Francisco, and there plied their several avocations and followed their devious courses in defiance of the prohibitions of a law which had lost its terrors for them, and in disregard of any other check save the revolver or the bowie-knife. At that time, San Francisco was one-half a brothel, and one-half a gaming-hell. There came a crisis in the annals of the city when the action of the law was forcibly impeded, in order that the reign of law might be restored. A Vigilance Committee discharged the fourfold functions of police, judge, jury, and executioner. A short shrift and lofty gallows was the fate of the criminal whom they took in the act of committing robbery or murder. The remedy was strong and dangerous. But the symptoms were so threatening as to inspire fear lest what men call civilization should cease to exist, and no peril incurred in applying the remedy was

comparable to the risk of allowing the disease to spread and become intensified. Never, perhaps, in the history of the world, did the result more completely justify the means employed than in the case of San Francisco. The Vigilance Committee discharged its duties with unrelenting severity so long as professional thieves and systematic murderers were at large triumphing in their crimes. As soon, however, as order was restored, the Vigilance Committee decreed its own dissolution, and the dispensers of summary justice became conspicuous for their obedience to the administrators of the law. From being a by-word for its lawlessness and licentiousness, the city of San Francisco has become, in little more than ten years, as moral as Philadelphia, and far more orderly than New York."

Market Street is the starting-point for the numbering of buildings on the streets running therefrom in a northerly and southerly direction, and the water front for those in a westerly direction. One hundred numbers are allowed for each block between principal streets: for example, if one wishes to go to 624 Montgomery Street, he will find it on the east side of the block extending from Clay Street to Washington Street, which is the seventh from Market Street—Commercial and Merchant Streets being private streets. Again: 825 Clay Street is above the eighth block from the water front, which is the one extending from Dupont Street to Stockton Street.

Montgomery Street, the leading thoroughfare, is a handsome street, and is usually thronged with pedestrians. At its northern end it extends to the top of a steep hill. The latter portion is so precipitous that carriages cannot ascend it. A flight of steps enables the foot-passenger to mount with comparative ease. From the top a commanding view is had of the bay, the opposite coast, and the business quarter of the city. On California Street the principal banks, and brokers' and insurance offices, are located.

The view from *Telegraph Hill*, 290 feet high, at the northern extremity of the city, is unsurpassed. It embraces at once the city, stretching along the semi-circular amphitheatre of hills, and overflowing the depression toward the *Presidio* on

* W. F. Rae, in "Westward by Rail."

the west and the *Mission* on the south, both arms of and the entrance to the bay, including the island of Alcatraz, which is fortified; Angel Island, over 700 feet in height; and *Yerba Buena* (Goat Island), the mountains of Marin County on the north, with the Peak of *Tamalpais*, 2,600 feet high; and the Contra Costa Range on the east, with *Monte Diablo* rising in the background to a height of 3,700 feet. The summits of Russian and Rincon Hills, and the Shot Tower, 200 feet high, on the corner of Shelby and First Streets, also afford fine views.

The great sea-wall of San Francisco, now building, will extend along the entire water-front of the city, from Chestnut Street on the north to Harrison Street on the south, a distance of 8,340 feet. It is estimated that it will cost \$2,500,000. The wall is 100 feet wide at the bottom, the foundation being laid 25 feet below low-water mark. The top, which is 65 feet wide, is on the level of the city grade, and is laid with three-inch plank, a large portion of which has been preserved by a process which renders it impervious to the effects of the weather. All the streets along the city front have a uniform width of one hundred and fifty feet.

WATER-WORKS.

The *Spring Valley Water Company* supplies the city with water at the present time. The water is brought from Lobos Creek, Pillarcitos Creek, and from Lake Honda. *Lobos Creek* is a stream of pure fresh water emptying into the Bay near Point Lobos. The stream is three and a half miles distant from the centre of the city in a straight line. The water is elevated into the two distributing reservoirs, built on the hills 300 feet above the city level. The capacity of these reservoirs is 11,000,000 gallons per day.

Pillarcitos Creek is situated east of the Coast Range of Mountains about fifteen miles southerly from San Francisco. A large dam has been constructed in the Pillarcitos Valley 92 feet high, and 600 feet long, containing 1,000,000,000 gallons, and is drawn from as required by the city reservoirs.

Lake Honda has a capacity of 35,000,000 gallons, and supplies the city by

means of three miles of cast-iron pipes to the reservoir on Market Street, corner of Buchanan, which contains two million gallons.

Several new organizations have been recently formed for the purpose of providing for a greater supply of water as the rapidly-increasing population of San Francisco may require, including a project to bring water from Lake Tahoe, one hundred and fifty miles distant from San Francisco.

HOTELS, RESTAURANTS, AND CLUBS.

HOTELS.—San Francisco is well supplied with first-class hotels, equal if not superior to those of any other city of like population, and in the elegance, comfort, and extent of their accommodations, unsurpassed by those of any city in the Union.

The first-class hotels are: the *Grand*, *Occidental*, and *Lick House*, on Montgomery, and the *Cosmopolitan* on Bush Street. Three dollars per day is the charge at these places. At the *Russ House*, on Montgomery, *American Exchange*, on Sansome, and *Brooklyn Hotel*, on Bush, the traveller will find excellent accommodations for from \$1.75 to \$2.50 per day.

The *Grand Hotel*, Johnson & Co., proprietors, situated on Market Street, corner of New Montgomery, is built with a view to elegance and comfort. It has a front of 205 feet on Market Street, and 335 feet on New Montgomery Street. The style of decoration is elaborately ornate. The building is three stories in height, and there is a fourth story in the Mansard roof. The rooms are arranged in suites.

The *Occidental Hotel*, on the east side of Montgomery Street, extending from Bush to Sutter Street, is well provided with all the accommodations of a first-class house.

The *Lick House*, on Montgomery Street, between Post and Sutter Streets, John M. Lawler & Co., is a favorite hotel.

The *Cosmopolitan Hotel*, Tubbs & Patten, proprietors, location southeast corner of Bush and Sansome Streets. A great many families reside here permanently, preferring it to others, it being rather more retired than the Montgomery Street

hotels. It is a large house, and well kept.

The Russ House, Pearson & Seymour, on the west side of Montgomery Street, from Pine to Bush Streets, is an old-established hotel, and is preferred by many to the more modern structures of greater elegance.

The American Exchange, T. Sargent, proprietor, 319 Sansome Street.

The Brooklyn Hotel, Kelly & Wood, 210 Bush Street, near Sacramento Street.

The International Hotel, 532 Jackson Street, near Montgomery, is one of the old hotels, and is well known to the early visitors of San Francisco.

The Continental Hotel, Pacific Street, between Montgomery and Kearney Sts., Herman Droste, proprietor, gives special attention to the accommodation of families. The "table" is good, and the charges moderate.

There are many cheap lodging-houses where comfortable rooms may be had for from 25 to 50 cents per night; the most frequented of these being the *What Cheer*, on Sacramento Street, formerly the best hotel in the city.

Besides the hotels enumerated, more than a hundred could be mentioned of more or less note in different parts of the city, each having its crowd of customers, and also many of particular nationalities, such as French, German, Italian, Swiss, etc.

RESTAURANTS.—In San Francisco, restaurants are a peculiar feature of the place, which might justly be called the City of Restaurants. Probably no city in the world, certainly none in the United States, can compare with San Francisco in this respect. Restaurants, chop-houses, rotisseries, abound in every part. A great many are first class, and so much on a par, that it is difficult for us to make a selection. In former times the greater part of the population took their meals at these places, and large numbers, families as well as individuals, still continue the practice. Many have never lived in any other way. Chop-houses and rotisseries differ somewhat from restaurants. In the former the cooking-furnaces are arranged on one side of the room, and a person coming in can make a selection of the raw food, and have it cooked right

before his eyes. This mode suits many who are fastidious and do not mind whether a dinner costs a trifle more or less.

The inferior restaurants in the business parts of the city are frequented mostly by men, but families, and ladies with gentlemen, can with propriety visit the first and second class restaurants; the same decorum being observed by those who frequent them as obtains in the dining-room of a first-class hotel. The restaurants which have rooms appropriated exclusively for ladies are generally second or third rate.

Besides these, there are also table d'hôtes, kept mostly by the French, where, by paying 50 cents, 75 cents, or a dollar, one can sit at the table and call for any thing he likes, provided it is on the bill of fare, including wine, coffee, and tea.

Martin's Restaurant, on Commercial Street, between Montgomery and Kearney, is noted for providing excellent suppers for private parties; rooms being especially set apart for that purpose.

There are also numerous establishments of an extensive character where sleeping accommodations are furnished by the day or week at a moderate charge. Restaurants may or may not be connected with these lodging-houses; but they are entirely distinct in their management, and often under different proprietors.

CLUBS.—*The Union Club*, incorporated in 1865; rooms 403 Montgomery Street, corner of California. This club, formed and carried on for the use, profit, and entertainment of its members, is complete in all that appertains to a well-conducted club-house.

San Francisco Olympic Club, 35 Sutter Street, is a popular and flourishing association, numbering over 500 members. It has regularly-organized classes in gymnastics, boxing, and fencing. The new rooms of the society are extensive and complete, and admirably adapted to the objects in view.

San Francisco Verein, incorporated in 1853; rooms 428 Pine Street. The reading-room is supplied with the full number of newspapers and all the leading magazines and periodicals. The library numbers over 5,000 volumes.

Pacific Turner Band, organized in 1859; rooms at Turnverein Hall, O'Farrell Street, between Mason and Taylor. This is an organization of the different Turnvereins of the Pacific Coast. Its objects are the cultivation of gymnastic exercises generally, and to facilitate as much as possible the establishment of new Turnvereins.

Society of California Pioneers, Pioneer Hall, Montgomery Street, near Jackson, organized in 1850. This society numbers about 1,400 members. Its objects are to collect and preserve information connected with the early settlement of the country, and to perpetuate the memory of the early settlers. The society possesses an excellent library and reading-room, and has a collection of many interesting relics of early times.

The Caledonian Club, organized in 1866, numbers over 400 members, who meet once a month at the hall, No. 234 Sutter Street, near Kearney. Its objects are social intercourse, and the perpetuation of the national sports of Scotland. An annual exhibition is given, and prizes awarded to those who excel in the Scottish athletic games. These exhibitions are well attended, and always interesting.

There are a great many other clubs and associations in San Francisco, each having some particular object in view, such as yachting, rowing, manly exercises, or social improvement, and all are more or less flourishing.

CONVEYANCES.

The Street Railroads now intersect the city in every direction. The cars of the *Omnibus Railway Company* run from north to south through different streets, as do also those of the *North Beach & Mission Railway Company*, with lines extending from the business centre to the southwest quarter of the city, the old Spanish settlement of the Mission Dolores (see page 134). *The Central Railway Company*, and the *Front Street & Ocean Company*, run from the city front through the central portion of the city, with branches to the extreme northern, western, and southern suburbs. *The Market Street Company*, the pioneer railroad, intersects the city from northeast to southwest, with a branch to the Pavil-

ion at Hay's Valley. *The City Railway*, a new company, runs from New Montgomery and Market Street to Twenty-sixth street. *The Potrero & Bay-View Railway* connects with the North Beach and Mission on Fourth Street, crosses Mission Bay, running over the Long Bridge of Islais Creek by South San Francisco to Bay View. A branch of the City Front & Ocean Railway runs from Polk Street to Laurel Hill Cemetery (Lone Mountain) (see page 131), and another branch from Broadway to Harbor View, near the Presidio (see page 135), making this road with its branches the longest in the city. The aggregate length of these railroads is about 50 miles. The cars are run with especial reference to the convenience of travellers. Passengers can obtain transfer tickets to reach the most distant parts of the city without extra charge. In the evening, one car of each of the principal lines, called the theatre car, always waits until the theatres are out.

FERRIES.

San Francisco and Oakland, foot of Pacific Street.—First boat leaves at 6.50 A. M. Last boat at 11.30 P. M.

San Francisco and San Antonio, foot of Pacific Street (Creek route).—First boat leaves at 9.30 A. M. Last boat, 3.30 P. M.

San Francisco and Alameda, from Davis Street, near Broadway.—First boat, 7.20 A. M. Last boat, 7 P. M.

Contra Costa, foot of Vallejo Street.—Boats leave morning and afternoon.

San Quentin, foot of Broadway.—First boat leaves at 9.30 A. M. Last boat, 6.30 P. M.

Saneclito Ferry, Meigs's Wharf.—First boat leaves at 10 A. M. Last boat, 6 P. M.

PLACES OF AMUSEMENT.

The principal places of amusement are found in the immediate neighborhood of Montgomery and Kearney Streets, and may be reached by either of the street railroads that run through the central portion of the city. The performances are generally concluded in time for the audience to meet the cars before 11 o'clock, P. M.

The California Theatre, Barrett and

McCullough, managers, Bush Street, just above Kearney, is one of the most elegant places of amusement on the Pacific coast. It is devoted to the representation of tragedy and the legitimate drama.

The Metropolitan Theatre, William H. Lyon, proprietor. Montgomery Street, between Washington and Jackson Streets. This is one of the oldest theatres on the coast. It has a large and commodious stage, and one of the finest auditoriums in the United States.

Maguire's Opera-House, Thomas Maguire, manager, Washington Street, near Montgomery. The performances are mostly opera bouffe, and burlesques.

Alhambra Theatre, W. H. Smith, manager, Bush Street, between Montgomery and Kearney Streets. Devoted to burlesque, negro minstrelsy, and ballet.

Bella Union Theatre, Samuel Tetlow, manager, Kearney Street, near Washington.

Chinese Theatres, east side Dupont Street, between Clay and Washington Streets; and north side Jackson Street, between Kearney and Dupont. At these theatres the performance is carried on amid the clashing of cymbals, the beating of drums, the blowing of trumpets, and other kinds of noise. (See page 131.)

City Gardens, Folsom Street, between Twelfth and Thirteenth Streets.

Woodward's Gardens, R. B. Woodward, proprietor, north side of Mission Street, between Thirteenth and Fourteenth Streets. This is a pleasant, popular place of resort, being the "Bar-num's" of the Pacific coast. Among its many attractions are a Museum of Curiosities, an Art Gallery, and a Menagerie. The grounds are handsomely laid out.

LIBRARIES.

San Francisco is well supplied with libraries, and in this respect may challenge competition with any city of its age in any part of the world. Statistics of these institutions show, beyond question, that the San Franciscans are a reading people.

Mercantile Library Association building is a large and beautiful edifice on Bush Street, between Montgomery and Sansome Streets. The rooms are spacious, well arranged, and elegantly furnished. The

number of volumes is over 30,000, all judiciously selected, and new books are constantly being added. The reading-room is supplied with all the leading newspapers and periodicals, local, domestic, and foreign.

Odd-Fellows' Library Association, Odd-Fellows' Hall, 325 and 327 Montgomery Street. This library was organized in 1854, and contains now over 18,000 volumes. In the reading-room may be found the leading journals of the day.

Mechanics' Institute Library occupies a large, substantial building on Post Street, between Montgomery and Kearney Streets. The library was organized in 1855. It contains now over 18,000 volumes, very large proportion of which are works of a scientific character. The reading-room is supplied with a well-selected assortment of magazines and newspapers from different parts of the world.

The San Francisco Law Library rooms, in Montgomery Block, are commodious, well arranged, and provided with the legal standard publications of the day. The library contains over 5,000 volumes, comprising those of every department of legal science, together with complete reports of American, English, and Scotch decisions.

CHURCHES.

There are over seventy places of worship in the city, and they are generally well attended on Sunday; but in a city so cosmopolitan as San Francisco the different classes of society spend Sunday in very different ways. With some it is a favorite day for pleasure-excursions. The German Turnvereins and military companies frequently make excursions to the suburbs or across the bay on Sunday, but in such cases they generally leave early in the morning, and the city proper is remarkably quiet through the day.

The churches of San Francisco are built more with reference to size and convenience than to architectural beauty. There are some few handsome buildings, and more that are fitted up with great elegance inside, but not very many that would attract particular notice from their exterior appearance. We shall notice the most prominent of each denomination:

EPISCOPAL.

Grace Church, corner California and Stockton Streets. Rev. James S. Bush, rector. This is sometimes called Grace Cathedral, the bishop of the diocese having been rector at different times. It is a very handsome stone building, with stained-glass windows.

Trinity Church, corner of Post and Powell Streets, is a large Gothic frame building, with tower and spire. The interior is handsomely finished. Rev. Theodore H. Lyman, D. D., rector; Rev. Charles H. Turner, assistant minister.

Church of the Advent, Howard Street, between Second and Third, opposite New Montgomery Street. Rev. H. D. Lathrop, rector.

ROMAN CATHOLIC.

St. Mary's Cathedral, northeast corner California and Dupont Streets. The Most Rev. Joseph S. Alemany, archbishop; the Very Rev. James Croke, vice-general; the Rev. J. Prendergast, pastor; and the Rev. T. O'Callahan, assistant. This is a noble building, 75 feet wide, fronting on California Street, and 130 deep on Dupont Street. Until St. Patrick's new church was built, it was the largest in the State. The tower at present is 135 feet high, and when completed with the proposed spire will be 200 feet high. The style of architecture is Gothic, which has been fully carried out in all the details. The main building is to be enlarged by adding 30 feet to its length.

St. Patrick's Church, north side of Mission Street, between Third and Fourth, Rev. Peter J. Grey, pastor, is a large and elegant structure, not yet quite completed. Services are temporarily held in the basement. This is designed to be the grandest church-building on the Pacific coast, as it is the largest in size; the cost will far exceed all estimates, reaching probably to \$250,000. Its dimensions are 90 feet front by 160 feet in depth. The walls are of brick, of great thickness and strength, and from the basement to the eaves of the wings are 30 feet in height. From the wings rise the walls of the main building, resting on iron pillars, and a roof of slate with a peak 100 feet above the pavement. The front entrance is through a brick

tower 120 feet high, surmounted by a wooden spire, the total height of which is 240 feet, making it the loftiest spire in the State, and surpassed by but very few in America.

St. Francis's Church, north side of Val-lejo Street, between Dupont and Stockton, Rev. James H. Aerden, pastor, and Rev. J. Valentini, assistant. This was the first Roman Catholic church organized in the city. A frame building was put up in 1849. The present large and elegant structure was erected in 1859-'60. It is built of brick, in the Gothic style of architecture, and has four projecting towers, each ninety feet high.

St. Ignatius's Church, south side of Market Street, between Fourth and Fifth. Served by the Fathers of the Society of Jesus, connected with St. Ignatius's College (see p. 130).

Church of the Mission Dolores, southwest corner of Sixteenth and Dolores Streets. Rev. Thomas Cushing, pastor; Rev. William Bowman, assistant (see p. 134).

St. Joseph's Church, west side of Tenth Street, between Folsom and Howard. Rev. H. P. Gallagher, pastor; Rev. Joseph A. Gallagher, Rev. A. Cullen, and Rev. John McNully, assistants. This is a large and elegantly-finished building, in the cruciform Gothic style.

PRESBYTERIAN.

First Presbyterian Church, west side of Stockton Street, between Washington and Clay. Rev. J. K. Smith, pastor.

Calvary Presbyterian Church, northwest corner of Geary and Powell Streets, Rev. John Hemphill, pastor, is a large and costly edifice, measuring 76 feet on Powell Street, and 116 feet on Geary Street. Its appearance is rather peculiar, being that of a combination of different styles of architecture, the Grecian predominating. It has ten small towers rising above the roof.

St. John's Presbyterian Church, north side of Post Street, between Mason and Taylor. Rev. W. A. Scott, pastor. This beautiful place of worship was purchased from the St. James's Episcopal Parish, and has since been very much improved and elegantly fitted up.

METHODIST.

First Methodist Episcopal Church, west side of Powell Street, between Washington and Jackson. Rev. H. Cox, D. D., pastor. This church was organized in 1849, and is the oldest of the denomination in the city.

Howard Street Methodist Episcopal Church, south side of Howard Street, between Second and Third. Rev. L. Walker, pastor.

Broadway German Methodist Episcopal Church, north side of Broadway, between Stockton and Powell. Rev. Frederick Brown, pastor.

German Methodist Episcopal Church, Folsom Street, between Fourth and Fifth. Rev. H. Breuck, pastor.

Bush Street Methodist Episcopal Church, Bush Street, near Devisadero. Rev. E. S. Todd, pastor.

African Methodist Episcopal Church, west side of Powell Street, between Jackson and Pacific.

BAPTIST.

First Baptist Church, north side of Washington Street, between Dupont and Stockton. Rev. A. R. Medbury, pastor.

Columbia Square Baptist Church, west side of Russ Street, between Howard and Folsom. Rev. D. S. Watson, D. D., pastor.

Third Baptist Church (negro), east side of Powell Street, between Bush and Sutter. Rev. J. R. Young, pastor.

JEWISH SYNAGOGUES.

Congregation Emanu-El, north side of Sutter Street, between Stockton and Powell. Rev. Elkan Cohn, rabbi. This is a large, elegant, and substantial structure, built of brick, with two lofty towers. The building, including the lot, cost \$185,000. It is finished inside with elegance and luxury, and all the arrangements are chaste and appropriate.

Congregation Ohabai Shalom, east side of Mason Street, between Geary and Post. Rev. Jacob Frenkel, rabbi. A very handsome edifice, built substantially of brick. The interior arrangements are appropriate and imposing, and present a very beautiful appearance.

Congregation Sherith Israel, corner of Post and Taylor Streets. Rev. Dr. A. J.

Messing, rabbi. A large and commodious building, and a very pleasing architectural ornament of the city. The interior is tastefully and elegantly finished. The lofty ceiling, arched and frescoed in imitation of the sky at night, dazzling with stars, presents a most beautiful appearance.

MISCELLANEOUS.

Mariners' Church, northeast corner of Sacramento and Drumm Streets. Rev. Joseph Rowell, pastor. This church was organized for the religious instruction and moral improvement of seafaring men, and is strictly an undenominational missionary church. Connected with it are a Bible-class, a Sunday-school, a Sunday reading-room, and weekly meetings are held of the Marine Temperance Society. The members of the church organization distribute Bibles, and perform other missionary work at the United States Marine Hospital, about the wharves and shipping, on board men-of-war, and other sea-going vessels.

First Reformed Church (German), place of worship, Excelsior Hall, 711 Mission Street. Rev. Frederick Fox, pastor.

Greek Church; place of worship, 911 Jackson Street. His Grace, Johannes, bishop; Rev. Paul Kedrolivansky, archpriest; Rev. Nicholas Kovrigin, pastor.

First Congregational Church, southwest corner of California and Dupont Streets. Rev. Andrew L. Stone, D. D., pastor.

Second Congregational Church, east side of Taylor Street, between Geary and O'Farrell. Rev. John Kimball, pastor.

United German Evangelical Lutheran Congregation of St. Mark's Church, south side of Geary Street, between Stockton and Powell. Rev. F. Luders, and Rev. Paul Loreutzen, pastors.

St. Paul's German Evangelical Lutheran Church, south side of Mission Street, between Fifth and Sixth. Rev. J. M. Buchler, pastor.

Scandinavian Evangelical Lutheran Church, Rev. F. Nanns, pastor. Services every Sunday, at 1 o'clock, p. m., in the church on Howard Street, between Second and Third.

First New Jerusalem Church, north side of O'Farrell Street, between Mason

and Taylor. Rev. John Doughty, pastor. This is a very neat building, in the Gothic style.

First Unitarian Church, south side of Geary Street, between Dupont and Stockton. Rev. Horatio Stebbins, pastor. A very beautiful building, remarkable for the purity of its architectural design and the elegance of its interior finish.

Chinese Mission House of the Methodist Episcopal Church, north side of Washington Street, between Stockton and Powell. Rev. Otis Gibson, superintendent; Rev. Hu Sing Me, native preacher.

Chinese Mission House, northeast corner of Stockton and Sacramento Streets. Rev. A. W. Loggins, and Rev. I. M. Condict, pastors (*see page 132*).

PARKS AND PUBLIC SQUARES.

The parks of San Francisco are in the future. Provision has been made by law for laying out and improving an extensive city park on the outskirts of the city, and for the opening and improving of a magnificent avenue; but work on these improvements has only just commenced. The commissioners appointed are authorized to expend \$100,000 the first year, \$75,000 the second year, and \$50,000 a year afterward.

Portsmouth Square, commonly called the *Plaza* (west side Kearney Street, from Washington to Clay Streets), is enclosed with a handsome iron railing, and laid out with gravel walks, trees, shrubs, and grass-plats, with a fountain in the centre of the grounds.

There are a number of other public squares in different parts of the city, but none of them have been much improved. The citizens are waiting for the Grand Park.

PUBLIC BUILDINGS.

City Hall, on Kearney Street, extending from Washington to Merchant Street (opposite the Plaza).

The New City Hall, to be built on the tract of land known as Yerba Buena Park, bounded by Market Street, MacAlister and Larkin Streets, will be a very elegant building, surpassed by few in the United States.

The Custom House, Battery Street, corner of Washington. Office hours from

9 o'clock A. M. to 4 o'clock P. M., daily, except Sundays.

The Post-Office is in the Custom-House building. Office hours from 8 o'clock A. M. to 4 o'clock P. M., and from 7 to 8.30 o'clock, except on Sundays, when the hours are from 9 to 10 o'clock A. M.

Hall of Records, Kearney Street, southeast corner of Washington.

United States Branch Mint, north side of Commercial Street, near Montgomery. Office hours (Sundays excepted) from 9 o'clock A. M. to 2 o'clock P. M. Gold bullion received from 9 o'clock A. M. to 12 o'clock M., and silver bullion from 12 o'clock M. to 1 o'clock P. M. Visitors admitted from 9 o'clock A. M. to 12 o'clock M. O. H. La Grange, superintendent.

At this establishment is made two-thirds of all the gold and silver coin manufactured in the United States. One hundred men and three coining-presses are kept constantly busy, \$242,000,000 having been coined here between 1854, the year of its establishment, and 1867, inclusive—an amount nearly equal to one-half the entire coinage of the Philadelphia Mint since its origin in 1793.

The New Mint, now building, will occupy the 100-vara lot which forms the northwest corner of Mission and Fifth Streets. It will be a grand and substantial structure, of the Doric-Ionic order. The lot cost \$100,000, and the building it is estimated will cost \$1,500,000.

The U. S. Treasury is located at 428 Montgomery Street. Office hours from 9 o'clock A. M. to 3 o'clock P. M. daily (Sundays excepted).

The Merchants' Exchange Building, on the south side of California Street, between Montgomery and Sansome Streets, is one of the most elegant and spacious in the city. The building cost about \$200,000, and the lot is valued at more than that sum. The large hall in the first story, occupied as the Merchants' Exchange, is a splendid room with lofty ceilings. It is fitted up for the uses of the Exchange, and supplied with all the leading papers and magazines, domestic and foreign. The building, as a whole, presents a striking appearance, but the style of architecture is somewhat incongruous. The first story is constructed

after the Doric order—the other two stories each after different orders. In the tower is a very fine clock.

The United States Marine Hospital, corner Mission and Fifteenth Streets, is an extensive building, on a commanding eminence, erected some twelve years ago. It receives over 1,000 patients in the course of the year, the average number of inmates being about 100.

United States Appraiser's Store, southwest corner Battery and Jackson Streets.

County Hospital, corner Stockton and Francisco Streets.

Industrial School, on the old San José road, five miles from the City Hall.

BENEVOLENT INSTITUTIONS, HOSPITALS, ETC.

Among the most notable of the numerous benevolent institutions of San Francisco are the following:

The Protestant Orphan Asylum, Laguna Street, near Haight. This institution was incorporated in 1851. In 1854 the present building was erected, at a cost of \$30,000, to which additions have since been made, involving a like expenditure. The asylum affords accommodation for 250 children.

The Roman Catholic Orphan Asylum, Market Street, near Third, has accommodation for about 750 children. There is an extensive school, consisting of several large and costly buildings, in connection with this institution. This noble establishment cost over \$100,000, independent of the valuable tract of land upon which the buildings are situated.

The Ladies' Protection and Relief Society, Franklin Street, near Post.

The Ladies' Seaman's Friend Society, corner of Vallejo and Battery Streets.

San Francisco Benevolent Association, corner of California and Webb Streets.

Home for the Inebriate, corner of Stockton and Chestnut Streets. This well-managed institution was organized in 1859.

The Magdalen Asylum, on the San Bruno road, one mile south of the city, was opened about five years ago, under the auspices of the Sisters of Mercy. It receives nearly 100 inmates.

The Asylum for the Deaf, Dumb, and Blind has been spoken of in the de-

scription of Oakland. The temporary building is at the Mission Dolores.

The Alameda Park Asylum for the Insane is situated on the Encinal, Alameda.

Some of these and other societies receive liberal aid from the State, large sums being given annually, by special appropriation, to the Orphan Asylums; but for their chief support, which involves large and constant expense, they are dependent upon the contributions of the benevolent. The Inebriate Asylum receives a monthly appropriation of \$250 from the city.

Besides the United States Marine Hospital and the County Hospital, already noticed, there are, among others:

St. Mary's Hospital, corner Bryant and First Streets, a Roman Catholic institution, having accommodations for a large number of patients.

The Almshouse, City and County, San Miguel road.

The State Woman's Hospital, 21 Hawthorne Street, founded in 1868 by several benevolent citizens.

SCHOOLS AND COLLEGES.

San Francisco has reason to be proud of the completeness of its educational system and institutions. Its school-houses are generally spacious and handsome buildings. Besides the public schools there are about seventy private establishments, some of which are of a high order.

Among the Roman Catholic institutions of learning is

The St. Ignatius College, on Market Street. The present edifice, though constituting but one-third of the building hereafter to be erected, has already cost \$120,000, independent of the site it occupies. The college is under the direction of the Jesuits, several priests of the order acting as teachers. (See page 127.)

St. Mary's College, situated four miles south of the city, is also a Roman Catholic institution. It occupies a costly brick building, and is surrounded by spacious grounds.

City College is one of the highest, not under sectarian control. University School, Union College, and the California Business University, are well-conducted institutions.

CEMETERIES.

Laurel Hill Cemetery, situated a little west of Lone Mountain, two and a half miles west of Montgomery Street, and opposite California Street. Office, 601 California Street.

Masonic Cemetery, near Lone Mountain. Office, 325 Montgomery Street.

Odd-Fellows' Cemetery, near Lone Mountain. Office, 325 Montgomery Street.

Mount Calvary Cemetery (Roman Catholic), east of Laurel Hill Cemetery.

Hebrew Cemetery, Gibboth Olom (Hills of Eternity), Dolores Street, between Nineteenth and Twentieth, and Church Streets.

Hebrew Cemetery, Nevai Shalome (Home of Peace), Dolores Street, between Eighteenth and Nineteenth, and Church Streets.

Lone Mountain Cemetery.—In the vicinity of the grounds selected for cemeteries is a singular mountain of a conical shape, which rises up, singly and alone, to a considerable height above the surrounding country, which is tolerably level. This has very appropriately been called Lone Mountain. The mountain proper is enclosed in the Roman Catholic Cemetery, and by that association called Mount Calvary, which has planted on its summit a large wooden cross. The mountain and cross are very conspicuous, and may be seen from almost any part of the city. The former, being so marked a feature of the landscape, and the principal cemeteries lying immediately around it, the custom seemed to come naturally to speak of the cemeteries generally as Lone Mountain, although this is not the corporate name of any of them.

This pretty ground is two and a half miles west of the principal hotels, and is reached by street-cars. It was dedicated May 30, 1854. The first interment was made June 2, 1854. It then consisted of one hundred and sixty acres, which was enlarged to its present size in 1862. Upward of fifteen thousand interments have already been made. Large numbers of the Chinese have been placed in vaults in this cemetery, previous to their removal to China. Among the monuments, that erected to Senator Broderick, from a design by William Craine, is one of the

most noteworthy. Ralston's, modelled after the Parthenon at Rome, and Luning's, are also fine structures.

The great feature of Lone Mountain is its unrivalled outlook, embracing fine bird's-eye views of the ocean, bay, and city, Mount Diablo, and the Coast Range. (See chapter on California.)

THE CHINESE IN SAN FRANCISCO.

There are probably about 20,000 Chinese in San Francisco. On every block you see them; at the turn of every corner you see the ever-present blue sack, nankeen pants, turban hat, and pigtail of John. They all dress about the same—seldom a ragged or patched coat is to be seen. In almost every family and restaurant are to be found the Chinese cooks; in every street you will pass some "Chang" or "Wong" sign hung out with the words underneath, "washing and ironing done here."

The Theatre.—No person visiting San Francisco should fail of a visit to the Chinese Theatre. It is located in the centre of "China-town"—the northern part of San Francisco. Here all the Chinese in the city have congregated; they hold undisputed possession of several blocks, and the houses are crammed from cellar and sub-cellar to garret. The theatre is in a two-story building, the entrance to the same being through a long, dirty, yellow-paper covered alley. Every person is smoking, and, if the visitor happens to have a seat in the gallery, he will have ample opportunity for judging of the difference between the smell of very bad cigars and opium.

The stage is about ten feet high, and covered on all sides with dirty, faded red and yellow paper, and black Chinese letters. Faded gilt stripes are here and there observable; pieces of tin, like sardine-boxes, piled on top of each other, are nailed to the walls; wings, tails, and heads of birds are hung up with old tin pans, broken chairs, legless tables, dirty coats, hats, and pants, rusty swords, broomsticks burned black for spears, peacock-feathers, red and yellow stripes of muslin, old boots and shoes, wooden animals painted every color but the natural, junks with sails set, armies marching, and bulls fighting, in fact the stage

is indescribable—imagine all the things in Barnum's Museum thrown out of the windows in an indiscriminate heap, and an idea can be formed of the stage in the Chinese Theatre.

The orchestra (?) sit on the stage and smoke all the time; some have things like horseshoes fastened to a stick a yard long; these they strike together; others have gongs in their hands, and one is so large it is fastened to a table, and the fellow who strikes it blows like a blacksmith swinging the sledge-hammer on an anvil. Another has a brass thing like a washing-tub, hung as high as his head; this he pounds with two things like stilts. There is no music, it is simply each man trying to make more noise than his fellow; after the "orchestra" have worn themselves out with making the noise, the performance commences. Several fellows, clad in green, red, and yellow costume, with long feathers sticking out from the backs of their necks, wings on their shoulders, and large masks in imitation of bulls, horses, and other beasts, begin strutting about and shouting one to another. It is impossible for any one except he be a Chinaman to understand what is going on. Here also can be seen the Chinese ladies (?) sitting in a separate compartment in the gallery. It is quite a common thing to see them here with their opium-pipes and a little basket containing the tea-pot—with tea ready made—and several small cups; while the performance is going on, they are alternately drinking and smoking opium.

Gambling-Houses, etc.—A visit to the gambling-houses and opium-cellars of the Chinese will well repay the tourist. To insure a ready admittance and respectful treatment, obtain the services of a policeman. As a general thing, every Chinaman gambles; they are the greatest gamblers in the world. In a cellar twelve feet under-ground will be found eighty or a hundred sitting around tables and betting. Their mode of gambling is simple: some one throws a handful of copper coins on the table and after putting up stakes they bet whether the number of coins is odd or even; then they count them and declare the result. Often in a single night they will gamble

away one or two months' wages. The places are greasy and dirty in the extreme, and filled with smoke.

The opium smoking-houses and cellars are fitted up with bunks a good deal like closets. Say a closet has eight shelves; well, on each shelf there will be found as many Chinamen, lying down on the boards, in pairs, with a wooden box for a pillow. They smoke in pairs: while one is smoking and preparing the opium, the other is dozing in a half-drunken sleep. When number one has had his smoke, he prepares the opium and pipe for number two; having handed the pipe to number two, number one keels over with eyes shut and mouth open in an insensible state and takes a nap; then number two smokes, hands the pipe to the first, and he too falls over, and so they go on, one smoking after the other until both are thoroughly "laid out" on the shelf. They take the opium-smoke into their lungs, retain it there as long as possible, and finally eject it through the nostrils.

The Temples.—The Chinese have three temples at present in San Francisco. The two principal gods are "How Wong" and "Quong Fi." At all hours of the day the visitor will find the temples open, and any number of joss-sticks smoking in front of the favorite gods.

Protestant Schools.—The religious people of San Francisco have established ten or a dozen Sabbath-schools, where the Chinese can learn first the English language, and secondly, the creeds, etc., of the Protestant Church. The principal school at present is that of Rev. Dr. Loomis. Here they sing first in English, then in Chinese, the hymns "There is a Happy Land," "Rock of Ages," "I want to be an Angel," "Just as I am, without one Plea," and others; they repeat the Ten Commandments and the Lord's Prayer. Dr. Loomis prays, using the Chinese language, and the Rev. Mr. Condict then preaches to them in their mother tongue. Their behavior is very good, and their singing excellent. Religious newspapers, published in their language at Canton, by the missionaries, are distributed one to each scholar. (See page 128.)

RIDES, DRIVES, ETC.

The most prominent places in and around the city are the following:

Alcatrazes—A fortified island in the Bay of San Francisco, one and two-thirds mile from Telegraph Hill.

Angel Island—In the Bay of San Francisco, within one mile of Marin County and five miles of San Francisco.

Bay View Park and Race-course—Near Hunter's Point, five miles south of the City Hall.

Black Point—On the Bay of San Francisco, at the commencement of Franklin Street, one and one-half mile northwest of the City Hall.

Clarke's Point—Foot of Broadway Street.

Cliff House—Near the ocean, at the termination of Point Lobos Road, six and one-half miles west of the City Hall. (See page 134.)

Fairmount—Old San José Road, four miles southwest from the City Hall.

Farallone Islands—In the Pacific Ocean, near the entrance to the Golden Gate, twenty-nine miles from San Francisco. (See page 134.)

Fort Point—Near Golden Gate, four miles west of the City Hall.

Golden Gate—The entrance to the Bay of San Francisco, six miles west of the City Hall. (See page 134.)

Hunter's Point—Four and one-half miles southeast from the City Hall. (See page 134.)

Kensington—Howard Street, near Twenty-first.

Lagoon—Gough Street, between Lombard and Francisco.

Laguna de la Merced—Near the ocean, seven miles southwest of the City Hall.

Lake Honda—Near the Ocean House Road, four miles southwest of the City Hall.

Lone Mountain—Near the termination of Bush Street, three miles southwest of the City Hall. (See page 131.)

Long Bridge—Extends from the termination of Fourth Street to Potrero Nuevo.

Mission Dolores Church—Corner of Sixteenth and Dolores Streets, three miles southwest of the City Hall. (See page 134.)

Mountain Lake—Near the Presidio, three miles west of the City Hall.

North Beach—Extends from the foot of Powell Street north to Black Point.

Ocean House and Race-course—Ocean House Road, McAllister Street, seven miles southwest of the City Hall. (See page 134.)

Ocean-Side House—Ocean beach, seven miles southwest of the City Hall.

Point Lobos—Opposite the Golden Gate, six miles southwest of the City Hall. (See page 135.)

Point San Quentin—Foot of Sierra Street, Potrero Nuevo, two and one-half miles southeast of the City Hall.

Potrero Nuevo—Near the Bay of San Francisco, two and one-half miles south of the City Hall.

Presidio—Fronting on the Bay of San Francisco, three miles west of the City Hall. (See page 135.)

San José Point—At the termination of Van Ness Avenue and the Bay of San Francisco.

Seal Rock—Six miles west of the City Hall. (See page 131.)

Spring Valley—The vicinity of Filbert and Gough Streets.

Steamboat Point—Foot of Second Street.

Telegraph Hill—From Broadway Street, between Dupont and the bay north to Bay Street.

Visitation Valley—Near the Bay of San Francisco and the San Mateo line, six miles south of the City Hall.

Yerba Buena—An island in the Bay of San Francisco, one and one-half mile from Market Street wharf. (See page 121.)

THE CLIFF HOUSE, SEAL ROCK, FARALLONE ISLANDS, HUNTER'S POINT, MISSION DOLORES, ETC.

The favorite drive of the pleasure-seekers of San Francisco is to the Cliff House, which is built on the edge of the cliffs, at the southern side of the entrance to the Golden Gate. By land it is seven miles from the city. A fine, broad, macadamized road of five miles' length leads from the outskirts of the city to a group of cliffs outside the Golden Gate, on the shore of the Pacific. On either side of the toll-gate at the entrance of the road,

lie the Lone Mountain Cemetery and Lone Mountain itself. The road is bounded by low, grass-covered hills, and hills of golden-colored sand, which contrast finely with each other under the brilliant sky, which gives constant pleasure to the eye accustomed to the many dull days of an Eastern winter or spring. The whole length of the road is watered in dusty weather, and is as smooth and well-kept as a race-course. Here you meet vehicles and riders of every description, particularly on Saturday afternoon, the half-holiday of the business men. Fast trotting and open carriages abound. Glimpses of the Golden Gate and its bold headlands meet the eye here and there to the right, and as we near the end of our ride we have a grand view of the Pacific beyond the hills on our left, and then, with a sharp turn between rugged sand-hills, we see a glorious expanse of blue ocean, and are at the Cliff House. This is a low, rambling building, set upon some cliffs rising sharply from the ocean and facing west. The road passes on by the hotel, cut through solid rock, with a stone parapet on the seaward side, to a broad, beautiful beach, which is of several miles' length, and over which at low tide one can easily drive to the *Ocean House* at its extreme end, and return to San Francisco by a road behind the Mission hills. But no one passes by the Cliff House without stopping; its pretty parlor and broad piazzas facing the sea detain the visitor very pleasantly. The restaurant attached to the house is famed for its excellence, and it is a custom of the dwellers in San Francisco to drive down in the lovely morning, before the summer northers begin to blow, and breakfast there.

Seal Rock is close by the hotel, and the greatest charm of the place is the lounge upon the wide, shaded piazza, facing the bold rocks which thrust their heads from the water, and to watch the seals, which, covering these rocks, bask in the sun, sleep or wriggle their clumsy bodies up and down as if every movement were difficult, barking so noisily that they are heard above the superb roar of the breakers. Northward lies the *Golden Gate*, through whose entrance sail in and out ships of all descriptions. Southward, the

beach, upon which the waves beat ceaselessly, and beyond, a rocky shore, whose peaks melt into the blue distance. The vast ocean in front sparkles in the sun, and in the distant horizon on a clear day the peaks of the Farallone Islands are visible.

The *Farallone Islands* are a rugged mass of rock of almost 200 acres in extent, belonging to the Farallone Island Egg Company. Here the murre, a large bird, resorts to deposit her eggs and hatch her young. At a distance, the birds hovering over the islands look like a dark cloud. The whole island is covered with nests. At the breeding-season the company robs the nests, and supplies the whole city and the surrounding country with the eggs. Several hundred thousand eggs are gathered every season. So great is the trade that the company has a vessel which, in the season, makes regular trips between San Francisco and the Farallone Islands.

Hunter's Point.—In an opposite direction from the city lies the dry-dock at Hunter's Point. This is cut out of solid rock, and is said to be one of the finest docks in the world. The ride to it leads across an arm of the bay, and over rounded hills covered with short grass, and destitute of any other vegetation. Varied views of the harbor, and the coves and rocks running into the hill-sides, make the drive pleasant.

Mission Dolores.—A visit to the *Mission*, three miles southwest of the city, will interest the stranger. The Market Street railroad-cars start for that point each half hour in the day. Lines of omnibuses run to the same place by a more circuitous route, passing through "The Willows," a pleasant suburban retreat, on their way. Many fine gardens are in the vicinity. The *Race-course* is a mile beyond. The *Protestant Orphan Asylum* is a fine building half a mile north. The *Mission* itself is an object of much interest. It is an adobe building of the old Spanish style, built in 1776. Adjoining is the cemetery, with its well-worn paths and fantastic monuments.

All through California one finds, scattered in the choicest situations for shelter and fertility, the old Spanish mission stations, founded by the Jesuit missiona-

ries nearly a century since. Many of them still exist under their old names, though the services are no longer held for the Indian converts, all traces of them seeming to have passed away. The church of the Mission Dolores has been enclosed in wood on three sides to save it from utter ruin. The old front remains, with its simple but quaint façade, and its silver bells giving forth a very uncertain sound, for they are sadly cracked; and services are held in front of the ancient altar and beneath the queerly-painted walls. The adjoining adobe buildings, once filled with the converts, and later with students, are now used for shabby shops and a still shabbier station-room, whose low doors are flanked by a pair of weather-worn walrus-tusks. Opposite these is a modern three-story brick building, surrounded by a high fence enclosing well-kept grounds, where the nuns of the order of Notre-Dame keep a large school.

The Presidio, Fort Point, etc.—A line of horse-cars runs near to the *Presidio*, which is situated some three miles toward the *Golden Gate*; a mile farther is *Fort Point*, so called from the fortification which protects the entrance to the harbor. Following the shore we pass *Point Lobos*, *Seal-Rock House*, and the *Cliff House*. From this point, returning to the city, 8 miles distant, the road winds through and over the San Bruno Hills, from whose peaks—1,200 feet above the level of the sea—a fine view of the bay on one side, and of the ocean on the other, is to be had.

Those who wish to get entirely away from the city's noise and dust, and enjoy the country in its purity and beauty, can cross the bay by any one of the numerous ferries, and find quiet, lovely villages in any direction,—beautiful valleys, elegant farm-houses, neat, pretty cottages, covered with running roses, and surrounded by bright flowers, well-filled orchards, and extensive vineyards. All these, occurring in constant succession, must charm and satisfy to the fullest extent seekers of the joys of country life.

DISTANCES FROM SAN FRANCISCO TO THE INTERIOR OF CALIFORNIA.

Alameda, 12 miles by steamer and railroad.

Almaden Mines, 67 miles by railroad and stage.

Alviso, 46 miles by water, or 60 miles railroad and stage.

Belmont, 25 miles by railroad.

Benicia, 30 miles by steamer.

Big Trees, 72 miles from Stockton *via* Murphy's by stage.

Calistoga, 71 miles by steamer and railroad.

Crystal Springs, 23 miles by railroad and stage.

Geyser Springs, 99 miles by steamer, railroad, and stage.

Gilroy, 80 miles by railroad.

Half Moon Bay, 34 miles by railroad and stage.

Healdsburg, 80 miles by steamer and stage.

Marc Island, 28 miles by steamer.

Martinez, 35 miles by steamer.

Mission San José, 38 miles by steamer, railroad, and stage.

Mount Diablo Mines, 44 miles by steamer and stage.

Mountain View, 38 miles by railroad.

Napa City, 44 miles by steamer and railroad.

Oakland, 8 miles by steamer and railroad.

Pacheco, 31 miles by steamer and stage.

Petaluma, 48 miles by steamer.

Redwood City, 28 miles by railroad.

Sacramento, 111 miles by steamer and railroad, and 117 by steamer.

San José, 50 miles by railroad.

San Leandro, 18 miles by steamer and railroad.

San Quentin, 12 miles by steamer.

San Rafael, 14 miles by steamer and railroad.

Santa Clara, 46 miles by railroad.

Santa Cruz, 76 miles by railroad and stage.

Stockton, 90 miles by railroad and 117 by water.

Suisun, 50 miles by steamer.

Vallejo, 28 miles by steamer.

Warm Springs, Alameda County, 41 miles by steamer, railroad, and stage.

White Sulphur Springs, Napa County, 52 miles by steamer.

White Sulphur Springs, Vallejo, 31 miles by railroad and stage.

Yosemite Falls, from Stockton *via* Mariposa 150 miles by stage.

TOURS OF THE GREAT LAKES AND RIVERS.

TOUR I.

FROM NEW YORK TO ST. LOUIS:

Via Niagara Falls, Lake Erie, Detroit River, Lake St. Clair, River St. Clair, Lake Huron, River Saint Mary, Lake Superior, Lake Superior and Mississippi Railway, and Mississippi River.

THIS tour is one in which variety and grandeur of scenery, and luxurious ease in travelling, are harmoniously combined. Three inland seas are crossed, the greatest cataract on the continent is visited, rich mines of iron and copper can be entered if the traveller desires, the picturesque dalles of the St. Louis River are seen to great advantage, and the most beautiful portion of the Mississippi River is traversed. The stifling heat and dust of our great cities are left behind, and the tourist draws in new life with every breath of the cool, bracing northern air, while he can feast upon delicious fish fresh from the clear, cold waters of their native lakes and streams. Our proposed trip is certainly the most delightful one that can be taken in this country during the summer months, as, aside from all considerations of scenery, the mode of travelling is so very comfortable; the only portion of the journey in which land travel is necessary, after reaching Buffalo, being the short portage from Duluth to Saint Paul.

From New York to Niagara Falls, the ordinary tourist would take either the Erie or Central Railway and would commence his excursion at Lake Erie; but, if time and money could both be spared, a far pleasanter plan would be to go up

the Hudson by a steamer of the Day Line, thence by rail to Lake George, cross Lakes George and Champlain by steamer, proceed by rail to Montreal, and thence by steamer to Niagara, thus being enabled to view the charming scenery of the St. Lawrence and to cross Lake Ontario, entering the Niagara River at its mouth. The various methods of reaching this point are all elaborately given in APPLETONS' HAND-BOOK OF AMERICAN TRAVEL—NORTHERN AND EASTERN TOUR, in which will also be found a long and carefully-written description of the Falls and the vicinity.

The regular lines of steamers in the lake-trade are swift, strong, safe, commodious, and elegantly furnished; the staterooms are fitted up with wide beds, and all the comforts of a cosy little bedroom, the cabins are large and even sumptuous in their appointments, and the "table" is excellent. As a rule, the officers of the steamers are kind and attentive, and on board most of the boats is to be found a band ready to furnish music for dancing. These steamers leave Buffalo, Erie, Cleveland, and Detroit. They may be taken at any one of these places, or at Port Huron or Port Sarnia, at the foot of Lake Huron. The usual through-fare from Buffalo to St. Louis, including meals, is \$68; but excursion tickets are issued during the season at reduced rates.

Lake Erie, which is first crossed, is the shallowest and most dangerous of the entire chain of the Great Lakes. It can be avoided at the cost of a ten or twelve hours' railway journey, but then

the tourist loses the pleasure of the Detroit River trip. The lake is 250 miles long, 60 miles wide, and averaging about 100 feet in depth. It is 564 feet above the level of the sea. Together with Lakes Ontario, Huron, Michigan, and Superior, it is recognized rather as a sea than a lake. After leaving Buffalo, the scenery is uninteresting, as we do not approach near enough to the land to see any thing except when entering and leaving port, and many of the steamers make no stops until reaching Detroit. For the convenience of the traveller who may be upon a boat making all the landings, a brief description of the principal ones along the southern shore of the lake may not be out of place. More extended notices of some of them will be found in Route II. in this volume, where they are treated as railway-stations.

Dunkirk, N. Y. (42 miles from Buffalo), has a good harbor, but is not particularly attractive. The entrance is rather difficult in rough weather.

Erie, Pa. (90 miles from Buffalo), the terminus of the *Philadelphia & Erie Railway*, has a very large and beautiful harbor, formed by what was once a long, narrow peninsula, but is now an island. The bar at the mouth has been dredged away so as to afford a good channel. Erie is a United States naval station. It was here that Commodore Perry took his prizes after the *battle of Lake Erie* in September, 1813. His flag-ship, the *Lawrence*, was dismantled in this port, and some of the wreck is still in the harbor.

Cleveland, O. (185 miles from Buffalo). Steamers usually make a stay of several hours at this port. The city stands upon a high bluff, and a good view of it is had from the water. (For description, see page 17.)

Put-in-Bay Islands are a very beautiful group, belonging to the State of Ohio. (For description, see page 5.) Passing among these and other islands, the tourist approaches the mouth of the

Detroit River, the distance between the shores gradually diminishing until they are only three miles apart. On the right bank is the Dominion of Canada, and on the left the State of Michigan, the

stream being dotted with islands, none of which are worthy of particular notice until "*Grosse Isle*" is reached. This, which is three miles long and one wide, is a favorite summer resort for Detroiters, who here find, within twenty miles of their homes, a delightful retreat from the heat and dust of the city. The island divides the river into two channels, which are known as American and Canadian; the latter, being the deepest, is used entirely by through-boats, none passing on the American side except to touch at Trenton or Gibraltar, the former of which is a flourishing place noted for its ship building. Opposite *Grosse Isle* is *Malden*, an old-fashioned Canadian village, the site of Fort Malden, a garrisoned post, important only from its position. The river is broad, varying from three miles at the mouth to a mile in width at the city of Detroit; the Canadian shore rising abruptly from the water to a height of from 20 to 25 feet, the American shore being low, and in some places marshy. Two sluggish streams, the *Rivière aux Canards*, near Malden, and the *River Rouge*, near Detroit, are the only affluents, and are of no importance whatever except as affording excellent duck-shooting, as the name of the one first mentioned would indicate. There are several low islands in the river, which are used as fishing-stations. The white-fish fisheries afford a livelihood to large numbers of men.

Wyandotte, Mich. (15 miles below Detroit), is the site of extensive rolling-mills, which may truly be said to have created the town. What was formerly nothing but a farm, is now an incorporated city. The factories use Lake Superior iron, and turn out rails and sheet-iron of the best quality.

Three miles below the steamboat landing at Detroit, the river makes a sudden turn, and the city comes into full view. On the right hand is the village of *Sandwich*, in Canada, and directly opposite is *Fort Wayne*, a bastioned redoubt mounted with heavy ordnance, and garrisoned by four or five companies of United States troops. For at least six miles commencing at the fort, the river-front is lined with mills, dry-docks, ship-yards, founderies, grain-elevators, railway-depots, and warehouses. On the Canadian shore but little

evidence is seen of enterprise or thrift. (For description, see page 2.)

Detroit, Mich., has extraordinary advantages as a manufacturing place, and has the best harbor on the whole line of the Great Lakes, while its central position between the mining-region of Lake Superior and the great markets of the East adds materially to its wealth and prosperity. (See page 3.)

The steamers generally stop at this port for several hours, and the tourist should improve this opportunity to drive through the principal streets and see the beauties of the town. Fort Street, Jefferson, Woodward, Washington, and Lafayette Avenues, are among the handsomest thoroughfares.

Leaving Detroit, we pass "*Belle Ile*," a small island at the head of the river, and soon see the broad waters of Lake St. Clair spread out before us.

Lake St. Clair, a link in the great chain of lakes, is 25 miles long, and about the same distance from shore to shore. It is naturally shallow, and at the upper end, where the river St. Clair empties, large deposits of sand have been made, known as the "Flats." These, for a long while, greatly impeded navigation, but the difficulty has been lately overcome by the construction of a canal, which will be described presently. Around the shores of the lake are large fields of rice, where immense flocks of wild-ducks swarm, geese are found in the shooting-season, and the waters teem with fish.

Ile la Peche, commonly known as "Peach Island," near the lower end of the lake, belongs to Canada. It was at one time the home of the celebrated Indian chief *Pontiac*. Parkman, in his "History of the Conspiracy of Pontiac," says: "Pontiac, the Satan of this forest-paradise, was accustomed to spend the early part of the summer upon a small island at the opening of Lake St. Clair." Another author says: "The king and lord of all this country lived in no royal state. His cabin was a small, oven-shaped structure of bark and rushes. Here he dwelt with his squaws and children; and here, doubtless, he might often have been seen carelessly reclining his naked form on a rush-mat or a bear-skin, like an ordinary Indian warrior."

The St. Clair Flats Ship-Canal, constructed under the superintendence of General Crane, of the United States Engineer Corps, extends through the flats, and is a blessing to every sailor, ship-owner and traveller who has occasion to pass from the lower to the upper lakes. It is a straight channel cut through the shifting sands, having at the very lowest stages of the water a depth of $13\frac{1}{2}$ feet, and ordinarily from 14 to 15 feet. It is 300 feet wide between the faces of the dikes; for the excavated earth has been deposited on either side, forming banks or dikes of a width of 40 feet between the lake and the canal faces. The protections, which are of wood, are more than three-fourths below the surface of the water, and the portion above water has been subjected to a process of "carbolic acidizing," which is considered a sure preventive of rot. Outside of them, sand has been emptied by the dredges, which has taken a natural slope of 1 foot in 20. Willows and other trees are to be planted on the embankments, which are also to be handsomely sodded. This will not only help in preserving the banks, but will add greatly to their beauty. The dikes only rise 5 feet above the surface of the water, but this is considered to be sufficient. They are so constructed that 16 or 20 feet of water can be obtained in the channel, whenever desired, by dredging, and 23 feet can be had by diminishing the width at the bottom to 225 feet. This canal, which is, in fact, a river conducted through a lake, is justly regarded as a triumph of engineering skill.

St. Clair River.—This is really a strait through which the waters of Lake Huron make their way toward the Atlantic Ocean. It is 48 miles long, and has a descent of 15 feet in that distance, which gives a current of from $3\frac{1}{2}$ to 4 miles an hour, with a depth varying from 40 to 60 feet. The scenery along St. Clair is beautiful, the banks on either side being well cultivated or covered with forest-trees. The towns along the river, for the most part, are prosperous and important places, connecting with Detroit by daily lines of steamers.

Saint Clair, Mich. (56 miles from Detroit), situated at the mouth of *Pine River*, is the capital of Saint Clair

County. It is a place of some importance, on account of its lumber-trade and manufactures. On the border of the town are the ruins of *Fort St. Clair*, built as a protection against the Indians.

Sutherland, Ont., is a small village on the opposite side of the river, and above are *Moore* and *Fromefield*, small Canadian villages.

Port Huron, Mich., is a port of entry at the mouth of *Black River*, which runs through a rich pine-region, and down which are floated the logs which supply the numerous saw-mills at this point. It is an incorporated city, is well built, and has a large trade. During the season of navigation it is connected by daily lines of steamers with Detroit, Saginaw, and the principal lake and river ports. Port Huron is to be the terminus of a railway now building to connect with the *Detroit & Milwaukee Railway* at *Owasso*, making an air-line across the State. The *Detroit Branch of the Grand Trunk Railway of Canada* passes through the city.

Sarnia, Ont., a port of entry opposite Port Huron, and connected with it by ferry, is a place of active business, being the terminus of the *Main Line of the Grand Trunk Railway of Canada*, and of a *Branch of the Great Western Railway*.

Fort Gratiot (two miles above Port Huron) is a United States military post, being garrisoned by two or three companies of troops. It was built in 1814, and has no strength as a fortification, consisting merely of a stockade around the barracks built for the troops; but, commanding the entrance to Lake Huron, it is of no small importance as a strategic point. The village adjoining the military reservation has gained considerable commercial importance since the building of the railway, as all freight and passengers are ferried across the river at this point, and all steamers in the lake-trade stop here. This village and Port Huron seem destined to grow together as one large city when the railways now building and projected open to settlement the large tract of country which must find here its natural outlet.

Point Edward, Ont., directly opposite Fort Gratiot, is to Sarnia what Fort Gratiot is to Port Huron.

Below Port Huron and Sarnia the river gradually becomes broader, and the current more rapid, until it reaches a mile in width, and runs at the rate of six miles an hour. It then grows narrower, between Fort Gratiot and Point Edward being only about a thousand feet wide, the increased velocity of the current being so noticeable that the descent of the water can be seen from the wharves on either side. The steamer stops for the last of the passengers, some of whom come by rail, and starts anew up Lake Huron.

Lake Huron lies between the 43d and 46th degrees of north latitude, is 250 miles in length from the head of the St. Clair River to the Straits of Mackinaw, and 100 miles in width. It is 574 feet above the level of the ocean, and varies in depth from 100 to 750 feet. *Georgian Bay*, on the northeast side of the lake, is very large, and lies entirely within the Dominion of Canada—*Saginaw Bay*, on the southwest, being within the limits of the State of Michigan. *Tawas Bay* is a good harbor on the northwest side of Saginaw Bay. *Thunder Bay* is farther north, and the *Thunder-Bay Islands* are at its mouth. The stormiest part of the lake is between Saginaw and Georgian Bays, where the wind often sweeps with terrific violence. But few islands are seen, and the traveller who has never been at sea can form some idea of what an ocean is, for during a portion of our voyage no land can be seen even from the masthead; the boundless expanse of water, dotted here and there with a distant sail, stretching on every side.

Except on special excursion-trips, the Lake Superior steamers do not touch at Mackinaw, but it may be well to notice these beautiful straits and their islands, as there are many of these excursion-trips in the course of the summer. There is a daily line of steamers from *Collingwood*, on Georgian Bay, one of the termini of the *Grand Trunk Railway to Chicago*, touching at Mackinaw.

The Strait of Mackinaw connects the waters of Lakes Michigan and Huron. It is about 40 miles in length, and from 5 to 20 miles wide, comprising, in its limits, the island of Mackinaw and several others; the largest of

all being *Bois Blanc Island*. The entrance to the strait, always beautiful, is particularly so in calm weather, soon after sunrise or just before sunset. Then the effect of the light and shade is charming; the islands, duplicated in the clear water, seem floating on the surface; the water in one place reflecting the rays of the sun with dazzling brilliancy, in another unrippled by a single zephyr, having the appearance of an undulating mirror; while Mackinaw, at first a mere speck in the distance, seems to rise from the horizon until it expands into a huge circular emerald. Presently we see the fort, the cliff, the village at its foot, the bold face of "Robinson's Folly," and finally the wigwams of the Indians upon the beach come into view.

Mackinaw Island, Mich., is 300 miles northwest of Detroit, and 350 miles north of Chicago. It is about three miles long and two miles wide. It is an old military post of the United States, as well as a delightful and popular place of summer resort. The waters surrounding the island teem with fish of delicious flavor, being as clear as those of Lake Superior, and the most minute objects can be discerned at a surprising depth. The fisherman sees the fish toying with his bait, and the active little Indian boys on the piers are always ready to dive for coins the visitor may throw into the water for them. The inhabitants of the pretty village at the foot of the cliff are mainly dependent on their fishing-nets and seines for support, and upon the money spent every summer by tourists, there being several good hotels and several stores where Indian curiosities, petrifications, agates, photographs, and other mementos of the place, are offered for sale. Boats for pleasure-excursions are always to be had, and the usual accessories of a summer resort, such as bowling-alleys, billiard-rooms, etc., etc., are provided at the best hotels.

A few minutes' walk from the landing brings us to the foot of the cliff, from which a steep road leads up to *Fort Mackinaw*, 200 feet above the level of the lake. The fort, which is garrisoned by a company of United States troops, overlooks the village and beautiful harbor. In the rear of and about

100 feet above this fort are the ruins of old *Fort Holmes*, and in their immediate neighborhood, 320 feet above the level of the lake, the highest point on the island, stands a signal-station. The view from this elevation is very fine. The *Islands of St. Martin* are exactly north, and beyond them, emptying into the bay, are *Pine* and *Carp Rivers*. To the northwest, on the main-land, are two curious rocks, called by the Indians the "*Sitting Rabbits*." Turning toward the east, *Lake Huron* is spread out before us, and, changing our field of observation toward the south, we have *Bois Blanc Island* and *Round Island*. Directly south are the *Straits of Mackinaw*, at this point but four miles wide; and on the south shore are the ruins of "*Old Fort Mackinaw*," destroyed by the Indians in 1763. Turning again we see, about four miles distant, *Point Ignace*, the most southerly point of the eastern portion of the "Upper Peninsula" of Michigan, and with this point we complete our circuit. When the moon is out in its full beauty, an indescribable charm is imparted to these views.

The island is covered with a thick growth of hard wood. The rides, drives, walks, and picnic grounds, are delightful and are kept in excellent order. Nuts and wild berries abound. Among the most attractive and interesting places upon the island we may mention the following:

Arched Rock, situated upon the eastern side of the island, is a feature of great interest. The cliffs attain a height of nearly one hundred feet, and at the base are strewn numerous fragments which have fallen from above. The *Arched Rock* has been excavated in a projecting angle of the limestone cliff, and the top of the span is about ninety feet above the lake-level, surmounted by about ten feet of rock. At the base of a projecting angle, which rises like a buttress, is a small opening, through which an explorer may pass to the main arch, where, after clambering over the steep slope of *débris* and the projecting edges of the strata, he reaches the brow of the cliff.

The beds forming the summit of the arch are cut off from direct connection with the main rock by a narrow gorge of no great depth. The portion sup-

porting the arch on the north side, and the curve of the arch itself, are comparatively fragile, and cannot long resist the action of rains and frosts, which, in this latitude, and on a rock thus constituted, produce great ravages every season. The arch, which on one side now connects this abutment with the main cliff, must soon be destroyed, as well as the abutment itself, and the whole be precipitated into the lake. The highest point of the arch is 140 feet above the water.

The Lover's Leap is a rock about one mile west of the village, having a vertical height of 145 feet. A solitary pine-tree was formerly a conspicuous object upon this cliff. The Indian legend, to which the place owes its name, is that a young squaw, standing on this point waiting for the return of her lover from battle, saw the warriors carrying his dead body to the island, and in her grief threw herself into the lake.

Robinson's Folly, a vertical cliff east of the village, is 128 feet high. It is named after a Scotchman, who, delighted with the situation, built himself a small house on its verge. One night the house was blown over the edge, and Mr. Robinson, being within, paid for his folly with his life.

The Sugar-Loaf is a solitary limestone-rock rising from the plateau upon which it stands. It is shaped like a huge loaf of white sugar, and contains a good-sized cave. Its summit is 284 feet above the lake.

The Devil's Kitchen is a curious cave.

The British Landing is on the island, opposite the village. It is a favorite place for picnics, and received its name from being the point where the British troops landed when they captured the island in 1812. There is a never-failing spring of water here, which even in mid-summer is too cold to drink with comfort, though it is said that in the severest winter weather it is never frozen.

There are other places of interest on the island, and many pleasant excursions can be made to fishing and hunting grounds in the vicinity. The tourist can find out all about these by making inquiry at the hotels.

Leaving Mackinaw to return to the

direct route to Lake Superior, the steamer passes the mouth of *St. Martin's Bay*, famed for its fishing, *Great and Little St. Martin's Islands*, and after a trip of 36 miles reaches *Point du Tour*, where the direct route is resumed, 305 miles from Detroit.

Point du Tour, the most easterly point of the main-land of the Upper Peninsula of Michigan, is at the mouth of *Saint Mary's River*. The light-house is at the extremity of this place, but the village is upon the river about two miles above. *Drummond Island*, opposite the point, now belongs to the United States, the boundary-line running to the east of it. It is a large island, and was once fortified by the British. The ruins of the fort are still to be seen.

The *Saint Mary's River*, a remarkably beautiful stream, 62 miles long, is the only outlet to Lake Superior. It contains about 50 islands belonging to the United States, and a large number belonging to Canada. The steamer enters the "west channel," which is about one mile broad and 100 feet deep, although just off the light-house it is only 50 feet deep. A description of the scenery of this river can be given only in the most general terms. The stream is a succession of expansions and contractions in width, and is beautifully dotted with evergreen-covered islands.

Patagannissing Bay, some 8 or 10 miles wide, extends from Drummond to Saint Joseph's Island, and as far north as the main-land, where it receives the waters of the north channel. It is covered with islands, most of which are within the limits of the United States. The river really passes through this bay to reach Lake Huron, or it may be more accurate to say that the river empties into this bay, and that it in turn communicates with Lake Huron by the straits, one of which is the "west channel."

Round or Pipe Island is 4 miles above the mouth of the river. Its general appearance is indicated by its name.

Saint Joseph's Island, 10 miles from De Tour, belongs to Canada. It is 20 miles long and 15 miles broad, being separated from the main-land by the north channel. It is fertile, and in part cultivated, the other portions being covered

by a heavy growth of forest-trees. A fort formerly stood upon the island, and the ruins are yet to be seen in sailing up the river. Two miles above the lower point of Round Island is *Lime Island*, the channel between the two forming the boundary-line between the United States and Canada. On the main-land, on the American side, is a small settlement called *Carletonville*.

Mud Lake, a part of the river, at *Sailors' Encampment Island*, 20 miles from Lake Huron, is 4 miles wide. It is about 10 miles long, and receives its name from being so shallow that the muddy bottom is easily stirred up.

Sugar Island, 30 miles from Lake Huron, is above St. Joseph's Island, and separated from it by the main channel which marks the boundary-line. It is situated at the spot where the north channel diverges. Two small rocky islands belonging to Canada here command both channels. *Church's Landing*, upon this island, is a stopping-point for passing steamers. Large quantities of raspberry jam, which brings a high price and finds a ready sale in the lake cities, are shipped from here.

The *Nobish Rapids* have a current of five miles an hour, but are no impediment to steamboat navigation.

Lake George, immediately above the rapids, like Mud Lake, is an arm of the river. It is five miles wide, and about eight in length. The channel was at one time so shallow as to be almost unnavigable for large steamers, but it has been improved by dredging.

Garden River Settlement is a village of the Chippewa Indians on the Canadian side of the river, midway between Lake George and the Saut, being about 10 miles from each. Fishing, hunting, and, in the season, gathering wild berries, are the principal occupations of the Indians in the place. *Little Lake George* and *Pointe aux Piers* are passed, and at the distance of 55 miles the *Saut* is reached, 7 miles below *Waika Bay*.

Saut Ste. Marie, Mich. (360 miles from Detroit), was settled by French Jesuits in 1668. It is the capital of Chippewa County, and is situated at the foot of the rapids which have, until recently, been an impassable barrier to navi-

gation. The fisheries, the fur-trade, and the entertainment of summer tourists, are the principal means of support of the inhabitants. The town is a small place, and, during a great part of the year, is cut off from the rest of the world on account of the coldness of the climate. If a railway is ever opened to this point, there will soon be a large city here, the location being a very favorable one for commerce. There is a village of the same name on the Canadian side of the river directly opposite. *Fort Brady* is a garrisoned post of the United States, commanding the channel at the Saut.

The Ste. Marie Rapids are very picturesque, the river falling 20 feet within a mile. They can be descended in a canoe, and any one, desiring to try this exciting sport, can always find Indians ready to make the trip with him. The red gentlemen are very expert with the paddle, and, if the passenger will only sit quietly where he is told, he will be in no danger.

In the summer of 1854, according to the Report of Foster and Whitney, made to Congress in 1856, "an extraordinary retrocession of the waters took place at the Saut Ste. Marie. The river here is nearly a mile in width, and the depth of water over the sandstone rapids is about three feet. The phenomena occurred at noon; the day was calm but cloudy; the water retired suddenly, leaving the bed of the river bare, except for the distance of about twenty rods where the channel is deepest, and remained so for the space of an hour. Persons went out and caught fish in the pools formed in the rocky cavities. The return of the waters was sudden, and presented a sublime spectacle. They came down like an immense surge, roaring and foaming, and those who had incautiously wandered into the river-bed had barely time to escape being overwhelmed."

The Saint Mary's Ship Canal, which has been constructed around the Rapids, belongs to the State of Michigan, and is one of the most complete and important in the country, being the only outlet for the mineral products of the Lake Superior region, and the commerce of that great body of water.

This canal was constructed for the

State by a company which expended about \$1,000,000 in the work, and received as compensation 750,000 acres of land, which was selected during the building of the canal, by agents appointed by the Governor of Michigan; 39,000 acres were selected in the iron region of Lake Superior, 147,000 acres in the copper region, and the balance, 564,000 acres, in the Lower Peninsula.

The following figures will give some idea of the magnitude of this work, which was commenced in the spring of 1853, the first steamer, the *Illinois*, passing through it on the 18th of June, 1855:

Length of canal, 5,548 feet = 1 mile 304 feet.

Width at top, 115 feet; at water-line, 100 feet; at bottom, 64 feet.

The depth of the canal is 12 feet.

A slope wall on the sides of the canal is 4,000 feet in length.

There are two locks, each 350 feet in length.

Width of locks, 70 feet at top, 61½ feet at bottom.

The walls are 25 feet high—10 feet thick at bottom.

Lift of upper lock, 8 feet; lower do., 10 feet; total lockage, 18 feet.

Lower wharf, 180 feet long; 20 feet wide. Upper wharf, 830 feet long; from 16 to 30 feet wide.

There are 3 pairs of folding-gates, each 40 feet wide.

Upper gate, 17 feet high; lower gate, 24 feet 6 inches high.

There are also upper and lower caisson-gates, used for shutting off the water from the canal.

The amount of lumber, timber, and iron, used in the building of the piers and gates, was enormous. There were 103,437 lbs. of wrought-iron used in the gates, and 38,000 lbs. cast-iron.

Waiska Bay, six miles above the head of the rapids, is reached after passing a beautiful stretch of the river. It is called by some a widening of the river; by others a part of the lake; but, be that as it may, it is in reality a picturesque bay about five miles long, terminated by *Iroquois Point* on the American, and *Gros Cap* on the Canadian side, between which the steamer passes.

Tonquamenon Bay, 25 miles

long, and about the same distance in width, is rather a contraction of the lake near its outlet than a bay. On the American shore the elevation of the land is not remarkably great, but on the Canadian side it is from 800 to 1,000 feet. The bay contains *Parisien* and other islands belonging to Canada. The termination, about 40 miles above the Saut, is marked on the south by *Whitefish Point* and light-house, and on the north by *Mamains Point*.

Lake Superior, the largest body of fresh water in the known world, extends from 84° 30' to 92° 30' west longitude, and from 46° 30' to 49° north latitude, being 460 miles long and 170 miles broad in its widest part, having an average width of 85 miles, a circuit of 1,750 miles, and an estimated area of 32,000 square miles. It is 600 feet above the level of the ocean, from which it is 1,500 miles distant by the way of the other lakes and the St. Lawrence River. It is 800 feet deep in its deepest portion—the bottom there being 200 feet below the level of the ocean. It receives its waters from about 200 rivers and streams draining an area of 100,000 square miles. It contains a number of islands in the eastern and western portions, but very few in the central. The most important of these are *Ile Royal*, *The Apostles*, and *Grand Island*, belonging to the United States, and *Michipicoton*, *Ile St. Ignace*, and *Pie Islands*, belonging to Canada.

The early French Jesuit fathers, who first explored and described this great lake, and published an account of it in Paris, in 1636, speak of its shores as resembling a bended bow, the northern shore being the arc, the southern shore the cord, and Keweenaw Point, projecting from the southern shore to near the middle of the lake, the arrow.

The coast of Lake Superior is mostly formed of rocks of various kinds, and of different geological groups. With the exception of sandy bars at the mouth of some of the rivers and small streams, the whole coast of the lake is rock-bound; and in some places, but more particularly on the north shore, mountain masses of considerable elevation rear themselves from the water's edge, while mural precipices

pieces and beetling crags oppose themselves to the surges of this mighty lake, and threaten the unfortunate mariner, who may be caught in a storm upon a lee-shore, with almost inevitable destruction.

The waters are of surprising clearness, are very cold, and filled with the most delicious fish.

The wealth of the mineral deposits by which the lake is surrounded is incalculable.

Once having passed *White-Fish Point*, with its "sand-dunes" or hills, and its tall light-house, the steamer usually takes a course for *Point au Sable*, 50 miles beyond, keeping in sight of the Michigan shore, which here presents a succession of steep sand-hills, varying from 300 to 500 feet in height.

The Pictured Rocks, 20 miles farther, and 785 miles from Buffalo, are a wonderful exhibition of the denuding effect of water, combined with the stains imparted by certain minerals. They extend for a distance of about five miles, rising in most places vertically from the water's edge to a height of from 50 to 200 feet, there being no beach whatever. When the weather will permit, steamers run near enough to give passengers a good view of these great curiosities; but, if the tourist can spare the time, his best way is to stop at *Grand Island*, and to visit them in a small boat, for, to be able to appreciate their extraordinary character, it is necessary to coast along the cliffs and pass beneath the *Grand Portal*. As we cannot afford the space required to give such a detailed description of these rocks as they deserve, we must content ourselves with briefly alluding to them in order from east to west; the visitor from Grand Island approaches them in the opposite direction.

The *Chapel* is a vaulted apartment in the rock, 30 or 40 feet above the level of the lake. An arched roof of sandstone rests on four columns of rock so as to leave an apartment about 40 feet in diameter, and about the same in height. It has been provided by Nature with a pulpit and altar, and if fashioned by the hands of man could scarcely have been more appropriately arranged. On the

west side, and close by, *Chapel River* falls into the lake over a rocky ledge 10 or 15 feet in height.

The *Grand Portal*, which appears next, is the most imposing feature in the series. The general disposition of the arched openings which traverse this great quadrilateral mass may, perhaps, be made intelligible without the aid of a ground-plan. The main body of the structure consists of a vast mass of a rectilinear shape, projecting out into the lake about 600 feet, and presenting a front of 300 or 400 feet, and rising to a height of about 200 feet. An entrance has been excavated from one side to the other, opening out into large vaulted passages which communicate with the great dome, some 300 feet from the front of the cliff. The *Grand Portal*, which opens out on the lake, is of magnificent dimensions, being about 100 feet in height, and 168 feet broad at the water-level.

The distance from the verge of the cliff over the arch to the water is 133 feet, leaving 33 feet for the thickness of the rock above the arch itself. The extreme height of the cliff is about 50 feet more, making in all 183 feet.

Sail Rock is about a mile to the west of the *Grand Portal*, and consists of a group of detached rocks. It owes its name to its striking resemblance to the jib and mainsail of a sloop when spread—so much so that when viewed from a distance, with a full glare of light upon it, while the cliff in the rear is left in the shade, the illusion is perfect. The height of the block is about 40 feet. Passing to the westward, we skirt the cliffs worn into thousands of strange forms, colored deep brown, yellow and gray, bright blue, and green. They are arranged in vertical and parallel bands extending to the water's edge, and are brightest when the streams are full of water.

Miner's Castle, 5 miles from the *Chapel*, and just west of the mouth of *Miner's River*, is the western end of the *Pictured Rocks*. It resembles an old turreted castle with an arched portal. The height of the advanced mass in which the Gothic gateway may be recognized is about 70 feet, that of the main wall forming the background being about 140 feet. For the next ten miles we pass along a

series of rocky promontories extending as far as *Grand Island*.

Grand Island, 125 miles from the *Saut*, is 10 miles long and 5 wide. It is a wild and romantic place, the sandstone cliffs being worn into the most curious and fantastic shapes. The fishing around the island is excellent.

Munising, formerly called *Grand Island City*, is on *Grand Island Bay*, which is 6 miles long, and from 2 to 4 miles wide, completely land-locked, deep, and easy of access. There are several dwellings, an hotel, and a pier at this place, which, from its proximity to the Pictured Rocks, and the fine fishing, boating, etc., in the vicinity, promises to become a popular place of summer resort. Near here are the *Schoolcraft Iron Works*. *Miner's Point* and *Monument Rock*, natural curiosities, may be visited in small boats.

Marquette, Mich. (835 miles from Buffalo, and 170 from the *Saut*), settled in 1849, has a large harbor, well protected from northeast winds. The city is well built, and carefully laid out. There are four immense piers running out into the bay, which are constructed so that the ore from the mines can be transferred from the cars to "pockets," and thence to the boats without handling, the transfer being effected in the same manner as is employed in loading vessels with grain. An ingenious contrivance is in use for preventing the fall of the ore injuring the boats. There are iron manufactures of various kinds at this point. The water at Marquette is bad, but this drawback will cease to exist when the proposed works for forcing up the lake-water into the city are constructed. The place naturally has great attractions for the invalid and tourist, in its healthy, invigorating atmosphere, beautiful walks and drives, fine scenery, boating, and fishing. Persons spending several weeks at Marquette can pass the time very agreeably in making excursions in the neighborhood to *Grand Island* and the *Pictured Rocks*, to *Carp River*, *Dead River*, and *Chocolat River*. There is trout-fishing at all these places. Another excursion is by the *Marquette & Ontonagon Railway* to *Champion* on *Lake Michigan* where there are good boating, hunt-

ing, and fishing, but poor accommodations for travellers. The distance is 32 miles, and the time of the trip is about three hours. A visit may also be made to the iron regions. We shall have something to say about this presently.

If the tourist is an enthusiastic sportsman, and would try his skill at the best fishing and hunting grounds in the Northern Peninsula, and at the same time take a four or five days' trip of adventure through an unbroken wilderness, let him leave all his baggage at Marquette; before starting, consult some veteran "backwoodsman," and, accompanied by two guides, take a canoe at *Champion*, cross *Lake Michigan*, follow *Michigan River* to the *Menominee River*, and so reach *Green Bay*. The route is through a rough, wild country, full of deer and other game; the river is broad, and has several rapids and falls, the descent in all being 1,000 feet. The river passes through a rich iron district, as yet undeveloped. Another similar trip, taking about four days, is down the *Escanawba River*. In September, 1870, when the writer was at Marquette, "Cameron" and a half-breed, named "Jack Repeat," were considered the best guides.

The Marquette Iron Region lies at the back of Marquette, from which the mines are distant from 12 to 30 miles; they being on an elevated ridge known as the *Iron Mountain*, which is from 700 to 800 feet above the level of the lake. The tourist can visit this region either by the *Marquette & Ontonagon Railway*, which has its outlet at Marquette, or by the *Peninsula Division* of the *Chicago & Northwestern Railway*. Both roads connect at Negaunee, and run in a continuous line across the Northern Peninsula from Marquette to *Escanawba* on *Green Bay*.

The grade from Marquette to Negaunee is so steep that in winter this part of the road cannot be used even by locomotives.

Negaunee (13 miles from Marquette), a dreary-looking place, 900 feet above the level of Lake Michigan, is the centre of the iron region, as now developed. It contains the *Pioneer Furnace*, the largest in the Upper Peninsula, and daily reduces thirty tons of ore to pure

pig-iron, using at present only the Jackson ore. From this point radiate railroads to the Jackson, the Lake Superior, the Washington, the Iron Cliff, the Tilden, the New York, the Cleveland, the Foster, and other mines, and it is hence that the mineral products of the country are transported, either to Marquette or Escanawba, for shipment. The region is so rich in iron that the embankments of the roads are of ore that would yield forty-five per cent. of metal. Many of the cuts are through hills of pure ore. Any thing yielding less than sixty per cent. of metal is termed *lean*, and is avoided if possible, but, if necessary to be removed, it is piled up out of the way, as not worth the cost of transportation. If the richest ore, however, is ever exhausted, it is possible that this *lean* will some day be considered of value.

The *Iron Mines*, as they are called, might more properly be termed *iron quarries*, as the ore, reaching to the very surface of the ground, is almost universally dug or quarried out of the side of the mountain precisely as a stone is obtained for building. In some of the older mines, however, tunnels and shafts are run, apparently more for the purpose of facilitating the loading of the cars than to get at the ore. The amount of capital invested in these mines is immense, and the returns for the investment almost incredible.

The mines are all alike, and a visit to one will suffice for all. The Jackson is one of the richest in the State. It has five openings of quarries connected with each other by tunnels. Two of these latter are mere passages, but the third is a *loader*, running some 50 to 60 feet below the bottom of the mines, and connected with them by four shafts, fitted up with *chutes*, down which the ore is thrown. The cars passing through the tunnel are filled from these so rapidly that from this one loader 150 car-loads are taken daily. By this arrangement, and the style of the ore docks, all handling of it is dispensed with from the time the miner loads it in the mine, until it is removed from the vessel at its destination. The deposits of iron in this mine, as in all the others opened, are *lenticular*, or lens-shaped, and do not run in strati-

fied veins, the intervening spaces between the lenses being filled with minerals of various kinds, and with ore of an inferior grade.

In Ohio and Pennsylvania there are 70 furnaces run entirely with Lake Superior ore, in Lower Michigan there are four, and in Upper Michigan there are nine, besides four which are in course of construction. The ore is taken to these furnaces, reduced to pig-iron, and then sold to the founderies and rolling-mills. There are 11 different locations, or mines, as they are called, each one having from two to nine openings. The supply is only limited by the number of men employed in excavating, and the means of transportation.

Resuming our journey, we make no stops until reaching *Portage Lake*, passing on our way *Granite Island* (12 miles from Marquette); *Stanard's Rock*, a very dangerous island of granite rock, 50 or 60 feet long, 10 feet wide, and four feet above the water; the *Huron Islands*, a picturesque group; *Huron Bay* and *Point Abbaye*, and cross *Keweenaw Bay* to the *Entry*, leaving *L'Ance* at the head of the Bay well to the south.

Portage Entry (80 miles from Marquette) was originally a narrow, crooked channel, leading from Keweenaw Bay into Portage Lake and very difficult of navigation; but in 1861 the Portage Lake and River Improvement Company was chartered, and a straight cut, 1,400 feet long, 100 feet wide, and 12 feet deep, was made, the channel of the river being straightened and deepened so that the largest steamers could enter without difficulty, and land at the towns on Portage Lake.

Houghton, Mich. (14 miles from the Entry), the capital of Houghton County, was first settled in 1854, and was incorporated as a village in 1861. It is built upon a steep side-hill, and from the water has an attractive appearance. It is a flourishing place, being the centre of the rich copper deposits of the Upper Peninsula. In the immediate vicinity are several of the largest and most productive mines, but none of them are now in full operation, owing to the low value of copper. Those which are being worked can be visited very easily. They are

very different from the iron-mines, being entered by deep shafts, and in all respects conforming to the conventional idea of a mine.

Houghton is one of the most pleasant places on the lake at which to pass the summer. The *Douglas House*, kept by Sheldon & Allen, is the largest and best hotel on Lake Superior. The drinking-water in all parts of the town is excellent, the sailing and rowing are perfectly safe, and within three miles are five or six well-stocked trout-streams. *Salmon Trout River*, 9 miles distant, is generally considered to be the best trout-stream in the Upper Peninsula. The roads in the neighborhood of Houghton are good, and some of the drives are delightful.

Hancock, Mich., is a small place opposite Houghton, and may almost be regarded as a portion of it.

Portage Lake might justly be called *Portage Strait*, as the canal, which will be described presently, has restored to it its original character. In digging this channel indubitable evidences have been found that Portage Lake was once an arm of Lake Superior, cutting off *Keweenaw Point*, which was then a large island. It is about 20 miles long, from half a mile to two miles in width, with an average depth of 50 feet. On either side the banks are covered with dense forests, a farm-house with wide clearings and a wood-dock occasionally varying the scene, for the demand for lumber is so great in this region that every owner of land becomes a wood-merchant, and none is burned to get it out of the way, as is common in most new settlements.

Portage Lake Ship-Canal is open for steamers, but is not quite completed. It is $2\frac{1}{2}$ miles long, 100 feet wide, and 13 feet deep. The sides are sheathed, the entire length, with piles and heavy planks, which will prevent all washing of the bank, or filling in of the channel. In 1860, Congress appropriated 200,000 acres of land for the construction of this canal, and in 1864 a company to prosecute the work was chartered by the State of Michigan, but active labor was not commenced until 1867, the company undertaking the work for a land-grant of 400,000 acres of mineral and pine lands.

Commencing at the Portage-Lake end of the canal, where the lake itself is narrowed down to 200 yards in width, the excavation was made through an alluvial deposit, thickly grown up with grasses and aquatic plants, but soon serious difficulties were experienced in crossing a tamarac swamp, 2,000 feet long, the roots of the trees extending 10 feet into the ground. The ordinary dredges would not answer at all, and it was necessary to construct one of extraordinary size and strength, with a serrated edge to the bucket. Immediately after the swamp, a sand-bank, extending to Lake Superior, was encountered. It was, in some places, over 30 feet above the level of the lake, and the work of cutting through it was enormous; steam-shovels were used to dig it down to the water-level, and dredges were then applied at each end, working toward each other; a railroad, track was run on each side of the canal, and the earth removed in cars, by steam-power, while that removed by the dredges was put into barges and towed out into the lake, where it was sunk. During the season of 1870, the company used, in the construction of the canal, 5 steam-dredges, 2 steam-excavators, 3 tow-boats, 2 locomotives, 4 pile-drivers, 60 cars, and 75 horses, and employed over 500 men. They have their own shops for the manufacture and repair of tools on the spot, and have built a good-sized village, in which are a store and a jail. A pier, or breakwater, to run out into the lake for about a quarter of a mile, on the west side of the canal, has been commenced. It is built of stone and wood, the "cribs" being made on shore, and floated into position, where, after being filled with stone, they are sunk. A stone-quarry, on the lake-shore, within two miles of the mouth of the canal, gives employment to a large number of men, at seasons of the year when work on the canal has to be suspended.

At the Lake Superior outlet is a fine site for a city, and it is believed that one must soon spring up there, as the company intends constructing on the spot a large dry-dock and a machine-shop for the building and repairing of vessels.

On October 16, 1870, the two immense dredges from the opposite ends of the

canal met, and the waters of *Lake Superior* and of *Portage Lake* were united.

This canal cuts off the tedious and dangerous circuit of *Keweenaw Point*, saving 24 hours in the time, and about 120 miles in the distance of travel. It will be the course taken by all steamers not bound for one of the ports on the Point.

For the sake of making our description of the Lake Superior trip the more complete, we will retrace our way to Portage Entry, and make the circuit of the south-westerly shore.

Keweenaw Point is about 60 miles long, and from 10 to 25 miles broad, and contains the great copper deposits, and much of the silver-ore of the Lake Superior region. The copper, in some places, is so pure that it is cut out with cold-chisels.

Lac La Belle is a beautiful lake, having its outlet in *Bite Gris Bay*, near the end of Keweenaw Point. It is entered through a canal a mile in length, and is in a rich copper region. Upon its shore is a small village, named *Mendota*, which contains a copper-smelting establishment, and is the outlet for several mines. A railroad from this place to Eagle River is projected. A few miles west of Lac La Belle are *Mount Houghton* and *Mount Bohemid*.

Manitou Island, at the extremity of Keweenaw Point, is 7 miles long and 4 broad. It is marked by a light-house.

Copper Harbor (315 miles from Saut Ste. Marie) is at the extreme end of Keweenaw Point, and is very difficult of approach, though, when it has been successfully entered, it is safe and commodious. The extensive copper-mines in the vicinity are not worked, and the place will probably remain inactive until it is found profitable to open them.

Eagle Harbor (16 miles from Copper Harbor) is the shipping-port for the product of several copper-mines.

Eagle River (341 miles from *Saut Ste. Marie*) is situated at the mouth of a stream of the same name. It is the port from which the copper from the celebrated "Cliff," and other mines in the vicinity, is shipped.

Ontonagon, Mich. (400 miles

from Saut Ste. Marie), is at the mouth of the river of the same name, and, when the mines in the neighborhood are working, does a large business. It is west of the *Portage Lake Canal*, and is consequently benefited by that great improvement. A railroad is now finished, connecting Ontonagon with Marquette, and two other lines, one from Milwaukee, and the other from Appleton, Wis., on the *Chicago & Northwestern Railway*, are projected, which will have Ontonagon for their northern terminus.

Porcupine Mountain is some 15 or 20 miles west of Ontonagon. It is 1,300 feet high, and is a very prominent object.

The Twelve Apostles' Islands, twenty-seven in number, are a large and beautiful group, some 70 miles west of Ontonagon. The clay and sandstone cliffs have been worn into strange shapes by the action of the water. The islands are almost covered with fine forest-trees.

The following description of the "Twelve Apostles" is from Owen's "Geological Survey of Wisconsin:"

"At a distance they appear like mainland, with deep bays and points, gradually becoming more elevated to the westward. '*Ile au Chêne*,' or *Oak Island*, which is next the Detour (or mainland), is a pile of detached drift, 250 or 300 feet high, and is the highest of the group. *Madeline*, '*Wau-ga-ba-me*' Island, is the largest (on which lies *La Pointe*), being 13 miles long, from northeast to southwest, and has an average of three miles in breadth. '*Muk-quaw*' or *Bear Island*, and '*Eshquagendeg*' or *Ouler Island*, are about equal in size, being six miles long and two and a half wide.

"They embrace in all an area of about 400 square miles, of which one-half is water. The soil is in some places good, but the major part would be difficult to clear and cultivate. The causes to which I have referred, as giving rise to thickets of evergreens along the coast of the lake, operate here on all sides, and have covered almost the whole surface with cedar, birch, aspen, hemlock, and pine. There are, however, patches of sugar-tree land, and natural meadows.

"The waters around the islands afford excellent white fish, trout, and siskowit, which do not appear to diminish after many years of extensive fishing for the lower lake markets. For trout and siskowit, which are caught with a line in deep water, the best ground of the neighborhood is off Bark Point or 'Point Ecorce' of the French. Speckled or brook trout are also taken in all the small streams.

"That portion of the soil of the islands fit for cultivation produces potatoes and all manner of garden vegetables and roots in great luxuriance. In the flat, wet parts, both the soil and climate are favorable to grass; and the crop is certain and stout. Wheat, oats, and barley do well on good soil when well cultivated.

"In regard to health, no portion of the continent surpasses the Apostle Islands. In the summer months they present to the residents of the South the most cool and delightful resort that can be imagined, and for invalids, especially such as are affected in the lungs or liver, the uniform, bracing atmosphere of Lake Superior produces the most surprising and beneficial effects."

La Pointe, 77 miles west of Ontonagon, was settled by French Jesuits in 1680. It is a fishing-village on the south end of *Madeline Island*, the largest of the "Apostles." Apples, cherries, and similar fruits, are cultivated here, and wild fruits and berries are found in great abundance.

Bayfield, Wis., 80 miles from Ontonagon, is the capital of La Pointe County, and is upon *La Pointe Bay*. It has a safe and capacious harbor, the Apostles' Islands completely protecting it from the wind. The shore rises abruptly, and the town stands from sixty to eighty feet above the water, affording a splendid view of the bay, the islands, and the lake. The projected *Hudson & Bayfield Railway* has been surveyed. This line is to Hudson, Wisconsin, upon the St. Croix River, and thence to St. Paul.

Chawamegon Bay, the entrance to Bayfield, forms a spacious and secure harbor. At its head, 12 miles south of Bayfield, is Ashland, 15 miles

east of which *Muskeg River* empties into Lake Superior. Ten miles still farther to the east is *Montreal River*, which marks the boundary-line between Wisconsin and Michigan.

Superior City, Wis., the capital of Douglas County, is 1,229 miles from Buffalo. It was predicted to be the great city of the Lake Superior country, but at present there seems no prospect of its anticipations being realized, Duluth having proved the successful competitor for the terminal station of the railways converging at this end of the lake. Superior is situated on the south side of the *Bay of Superior*, which is formed by Superior and Minnesota Points, and which with Duluth Bay extends eight miles from Superior to Duluth. The bay is three-quarters of a mile wide, is deep, and is entirely land-locked. It receives the waters of the *St. Louis* and *Nemadji Rivers*. Superior City was laid out in 1854, and for three years increased rapidly in population, but, unless something happens to give it a new impetus, it is not likely to become ever any thing more than a small fishing-village.

Duluth, Minn., 1,235 miles from Buffalo, is named after Captain John Du Luth, a French officer, who visited Lake Superior in 1679. It is picturesquely located on the hill-side.

To obtain a good view of Duluth and its vicinity, the tourist should ascend the hill to some point beyond the houses, or should go up into the steeple of the Presbyterian church and look toward the south. At his feet he will see the bustling little city full of life and energy, bearing everywhere the marks of its recent creation; to the extreme right are *St. Louis Bay* and *River*, separated from Duluth Bay by *Rice's Point*, and from the Bay of Superior by *Connor's Point*, between which the river and bay empty into Duluth and Superior Bays; next comes the island-dotted sheet of water stretching from Duluth to Superior, and called at the northern end *Duluth*, and at the southern end *Superior Bay*. Directly south eleven miles is seen Superior City, while to the eastward as far as the eye can reach stretches *Lake Superior*, from which the bays are separated by a long, narrow thread of sand and peb-

bles pierced by two channels. One of these latter, the natural communication at Superior, is called the "Entry;" the other, at Duluth, is an artificial strait, opened since 1870. The two points of land are known respectively as "*Superior*" and "*Minnesota Points*." A large breakwater, about a mile from Minnesota Point, running some distance into the lake, is building by the Government, as a protection to the outer harbor, which is now only defended by the long pier of the railroad company. When the breakwater is completed, and the bays dredged, Duluth will have a dock-age front of 20 miles. Four large piers have already been built; two of them, respectively 500 and 700 feet long, project into the lake, the one being in Duluth Bay, and the other in St. Louis Bay. The climate of Duluth is salubrious, the reports as to the intensity of the cold having been greatly exaggerated; the mean temperature in winter is 16° Fahr. Transports came into the harbor January 4, 1870; the first lake-boat arrived May 5th, and the last left November 22d, showing that navigation was not exceptionally impeded by the temperature.

The sudden growth of Duluth has been wonderful. On the 1st of January, 1869, the whole town site, with the exception of a small piece of ground on either side of Superior Street, between First and Fourth Avenues, east, was a dense and unbroken forest; while in April, 1871, the amount of land cleared and improved within the city limits amounted to nearly two thousand acres. Three crooked cow-paths were the only thoroughfares from one end of the town-plot to the other; now, there are nine miles of streets well graded, and two of these partly macadamized, besides four miles of plank sidewalks of an average width of ten feet. Then, the buildings of Duluth did not number much, if any, more than a dozen, and they certainly were not worth ten thousand dollars all told; now there are fully six hundred, some of which cost five, ten, fifteen, twenty, forty-five, and even one hundred and fifty thousand dollars each, and since that time there has been ex-

ceeded here, as tables of statistics show, more than two millions and a half of dollars in buildings and in substantial improvements. Then, there was not a dry-goods nor provision store in Duluth, and the supplies were purchased in Superior, and brought across the bay in birch-bark canoes in summer and in dog-trains in winter; now there are mercantile and business houses whose aggregate sales during the year 1870 amounted to nearly \$5,000,000, and the freight received at and shipped from Duluth during the eight months ending December 31, 1870, amounted to over 70,000 tons. Then there were no railroads, but now the city is the lake terminus of two roads—the *Lake Superior*, leading to St. Paul, and the great *Northern Pacific*, upon which the track is laid to a point on the Missouri River in Dakota 420 miles west of Duluth.

The population at the time the census of 1870 was taken was 3,500, and the inhabitants were of a better class than is usually found in a new city. There are six churches, and more building, two newspapers, and good private and public schools. There are two comfortable hotels—one, the Clark House, being large, well furnished, and well kept. There are also some smaller hotels, and several good private boarding-houses.

We here leave the steamer and continue our journey as far as St. Paul by land; but, as the tourist may wish to complete the circuit of Lake Superior, we will, before leaving Duluth, give a brief notice of some of the points of interest on the "North Shore."

The North Shore of Lake Superior, except to a few, is an unknown region, and only at a few scattered points is inhabited. The lake-steamers in their summer excursion-trips return from Duluth to Saut Ste. Marie by way of the north shore, to enable passengers to obtain a glimpse of some of its wonders; but, if the tourist desires to visit any number of the many places of interest along the coast, he must hire a boat, and two or three experienced men as a crew. For the convenience of any

of our readers who may wish to make such a voyage, we give a table of

PLACES ON NORTH SHORE OF LAKE SUPERIOR.	
LANDINGS.	MILES.
Duluth, Minn.	
Lester River.....	5
Kassabika River.....	7 12
French River (Copper Mines).....	3 15
Buchanan.....	4 19
Kuife River (Copper Mines).....	1 20
Burlington.....	10 30
Stewart's River.....	3 33
Encampment River and Island.....	3 36
Split Rock River.....	7 43
Beaver Bay, N. lat. 47° 12', W. long. 91°	10 53
Palisades.....	5 53
Baptism River.....	1 59
Little Marais.....	6 65
Manitou River.....	3 68
Two-Island River.....	8 76
Temperance River.....	5 81
Poplar River.....	6 87
Grand Portage, Indian trading post, N.	
lat. 47° 50', W. lon. 90°.....	16 103
Isle Royal, attached to Michigan,	
Pigeon River, boundary between the	
United States and Canada.....	10 113
Pie Island, 700 feet high.....	20 133
Welcome Island.....	7 140
Mouth Kaministiquia River,	
Fort William, Canada, N. lat. 48° 23', W.	
long. 89° 27'.....	3 143
Thunder Bay, 30 miles long.	
Thunder Cape, 1,350 feet high.....	15 153
Black Bay.....	10 168
Point Porphyry.....	5 173
Entrance to Neebigon Bay.....	30 203
Sto. Ignace Island (Silver and Copper	
Mines).....	10 213
Slate Islands.....	30 243
Pie Island.....	15 258
Peninsula Harbor.....	8 266
Pie River and Harbor.....	10 276
Otter Island, Head, and Cove.....	30 306
Michipicoton Island, 800 feet high.....	25 331
Michipicoton Harbor and River, N. lat.	
47° 56', W. lon. 85° 06'.....	45 376
Cape Gargantua.....	25 401
Leach Island.....	12 413
Lizard Islands.....	6 419
Montreal Island and River.....	14 463
Mica Bay (Copper Mine).....	20 483
Mamainso Point.....	6 489
Batchewanaung Bay (Fishing Station).....	10 499
Sandy Islands.....	4 503
Maple Island.....	7 510
Goulets Bay and Point.....	3 518
Parisien Island.....	5 523
Gros Cap, 700 feet high.....	10 533
Point aux Pins.....	7 540
Sant Sto. Marie, Canada.....	8 543

Encampment River and Island, Minn., are 36 miles from Duluth. The falls near the mouth of the river will afford a good water-power when the country becomes settled. The shore of the lake is abrupt, and in some places rises from 800 to 1,000 feet; the water is too deep for vessels to anchor. The

greenstone cliffs, rising from 200 to 300 feet in this vicinity, are very attractive. This place is noted for producing violent fluctuations of the magnetic needle.

The Palisades (58 miles) are very remarkable. The rock rises from the margin of the lake to the height of over 300 feet, presenting vertical columns from 60 to 100 feet high, and from one to six feet in diameter.

Temperance River, Minn. (81 miles), is noted for its falls, about half a mile apart. The *Lower Fall* is composed of two perpendicular pitches, presenting an almost unbroken sheet of water of about 30 feet descent, some 200 feet from the lake.

Grand Portage, Minn. (103 miles), is an old station of the American Fur Company. The mountains rise boldly from the water's edge, from 800 to 1,000 feet in height.

Isle Royal, Mich., is between Grand Portage and Keweenaw Point. It is 45 miles long and from 8 to 12 miles wide. It is filled with rich minerals and precious stones, affords good fishing, and promises to be one day a popular summer resort. The island contains a number of small lakes, inlets, etc., and has one large body of water, *Siskowitt Lake*, which has no visible outlet. Of the five harbors of Isle Royal, the principal one is *Siskowitt Bay*, where is the only settlement within 50 miles of Eagle Harbor, the nearest port on the main-land of the State.

Pigeon River (113 miles) is the boundary-line between the United States and Canada.

Pie Island, Can., 700 feet high, in shape resembles a slouched hat.

Fort William, Can. (143 miles), is an important Hudson's Bay Company post. Two miles above the post, on the opposite side of *Kaministiquia River*, is a *Roman Catholic Mission*, consisting of a church and 50 or 60 houses, inhabited by half-breeds and Indians. Near the mission is *McKay's Mountain*, having an abrupt ascent of about 1,000 feet. The name of the Kaministiquia River was given to it by the Chippewa Indians. It signifies "place where there are many currents." Twelve miles from the mouth of the stream are

rapids, and 18 miles farther is a fall of 200 feet perpendicular height.

Thunder Bay, into which the Kaministiquia empties itself, is about 30 miles long and from 10 to 15 wide. On the east is *Thunder Cape*, 1,350 feet in height. At its summit is the crater of an extinct volcano. The rock in some places is almost perpendicular.

Black Bay (168 miles), 45 miles long and from 6 to 8 miles wide, is surrounded by high hills, two of which, from their resemblance to a woman's breasts, are called *Les Mamelons*.

Neebipigon Bay (203 miles), 40 miles long, 15 wide, contains a number of beautiful islands. The waters and woods are full of fish and game, and the hills, which almost surround the bay, are rich in minerals and precious stones.

Ste. Ignace Island (213 miles), 17 miles long and 6 broad, is noted for its silver and copper mines, its beautiful scenery, and the large quantities of brook-trout which abound in the streams and small lakes.

Slate Islands (243 miles) are a beautiful group, of peculiar geological formation. The whole coast along this portion of the lake presents a succession of fine harbors.

Michipicoton Island, Can. (331 miles), 15 miles long and 6 broad, is a charming place. It contains large deposits of silver and copper, and is indented with beautiful bays, on the shores of which agates and other precious stones are found. In the interior is a lake, encircled by hills. Michipicoton Island will probably become a favorite place of summer resort.

Michipicoton Harbor and River (376 miles) is the site of a Roman Catholic mission, and a post of the Hudson's Bay Company.

Mamainse Point, Can. (489 miles), is where the Montreal Company's copper-mine is situated. There is a fishing-station and a good harbor here.

Caribou Island, which is near the centre of the lake, belongs to Canada. It is 25 miles south of Michipicoton Island, and is seen from steamers running to Fort William.

We have made our sketch of the north shore of Lake Superior as brief as

possible, as at present but very few travellers can have an opportunity of seeing its superb scenery. When the country becomes settled and known it is destined to attract thousands of seekers after pleasure or health, and its marvels will then be scarcely less famous than those of the new West.

Having completed the circuit of the lake, we will resume our journey at Duluth.

STATIONS.—LAKE SUPERIOR & MISSISSIPPI RAILWAY.—Duluth (connects with steamers for all lake ports); Fond du Lac, 15 miles; N. P. R. R. Junction, 24; Moose Lake, 42; Kettle River, 61; Hinckley, 79 (trains stop for meals); Pine City, 90; Rush City, 102; North Branch, 114; Wyoming (connects with stage for Taylor's Falls), 126; Centerville, 139; White Bear Lake, 144; St. Paul (connects with railways diverging, and with river steamers), 156.

On the 22d, 23d, 24th, 25th, and 26th of August, 1870, the opening of the Lake Superior and Mississippi Railway was celebrated at Duluth and St. Paul in the most enthusiastic manner, with torch-light processions, balls, dinners, speeches, and all the bustle and confusion of a Fourth of July prolonged five days. The first trains were run some days previously, but this formal opening was delayed until the arrival of a large party of stockholders and other excursionists from Philadelphia.

The country through which the road runs was an unbroken wilderness, except near St. Paul, where the building of the road was commenced, and consequently, as yet, there is nothing to describe in any of the stations, which are collections of unpainted pine shanties with here and there an ambitious two-story house of the same material. It is probable, however, that a few years will see thrifty villages all along the route.

The line of the road runs along the head of Duluth Bay and St. Louis Bay, and then up the north bank of the St. Louis River to *Fond du Lac*, which is an old Indian payment station, and was once the headquarters of the American Fur Company. This is the head of navigation upon the river, which has a considerable fall, furnishing a good water-power

at this point. The road now commences to ascend by heavy grades, and in a few miles reaches the "Dalles," crossing the river once or twice and leaping several ravines by splendid trestle-bridges, one of which, 85 feet high, and 780 feet long, is upon a curve where the grade is so heavy that the difference in the elevation of the ends of the bridge is plainly visible. The construction of the first 25 miles of the road was very expensive, serious natural difficulties having to be overcome. The time occupied in building the entire road was two years; 3,000 men during that time working summer and winter. In one place there are several miles of piling through a swamp, which could only be constructed when the ice was strong enough to bear the weight of the pile-drivers, the morass being too dangerous to permit of the work being done during the summer months.

The Dalles of the St. Louis River, four miles long, are considered as among the great wonders of American scenery. The traveller has the fullest opportunity of seeing them from the cars, as the track is continually in sight of the river until it finally crosses it, leaving it behind some 25 miles from Duluth. In the distance of 4 miles the descent of the river is 400 feet, the appearance being rather that of a continuous rapid than a succession of falls. The banks are almost—and in places quite—vertical, and the slate-rocks through which the water forces its way are ruptured and twisted in every conceivable manner. In one place they are at right angles to the stream, forming a dam over which the waters roll with a sullen roar, or through which they force their way by one or two narrow openings like sluices, gliding smoothly and swiftly down an inclined plane to the broken rocks below, where they froth and boil and rise in clouds of spray; then a few rods farther on they will encounter other impediments, but this time the strata will be thrown up parallel with the course of the river, and the water, broken in a thousand different channels, eddies and darts along, a sheet of dancing foam, over and around the sharp, black rocks; and then perhaps will come a short stretch of smooth water, terminated by another fall

and a rapid. The water is colored by the swamps from which it is fed, so that where it is deep and smooth, it is of a deep, rich amber, but when shallow and running swiftly over a smooth bed, as at the crest of a fall, it is of a golden hue like pure amber; and, again, when frothing and foaming it is beautifully white. The effect of the sun upon the river is charming beyond description, and the contrasts of color between the forests upon the banks, the naked slate-rocks, and the chameleon-hued waters of the stream, are wonderfully effective. It seems a shame to mar the grandeur and beauty of such scenes as meet the eye at every point of the Dalles, but the utilitarianism of the day spares nothing, and plans are on foot to make the immense power here afforded useful for mills, manufacturing, etc., etc.

Slate-Quarries.—The immense deposits of slate which exist here are of great value, and a company is now engaged in developing this source of wealth at *Thompson*, near the junction of the *Northern Pacific Railway*, under the direction of Mr. Thomas Arnold, formerly of Lancaster, Pa.

Wyoming, Minn. (126 miles from Duluth, and 30 from St. Paul), is near the crossing of *Sunrise River*, in the heart of one of the finest hunting-regions of the State. It is 6 miles from *Chisago City*, a village on a neck of land between *Green Lake* and *Chisago Lake*, both of which are noted for their fine fishing, and the abundance of game in the neighboring woods. The country along this road is, indeed, one net-work of lakes and streams filled with fish, and surrounded by woods, in which game of all kinds is abundant. Several picturesque sheets of water are seen from the windows of the cars.

Centreville, Minn. (139 miles), is situated on *Rice Lakes*, 4 miles west of *Forest Lake*, and 3 miles east of *Oneka Lake*, which is almost circular in shape. The village has one hotel, which is a great resort for sportsmen. At *Forest Lake*, a lovely sheet of water, there is also an hotel. White Bear Lake, Bald Eagle Lake, and Lake Phelan, all of which lie along the line of the road, will be noticed in the description of Saint Paul,

they all being favorite resorts with the people of that city for fishing, picnic, and driving excursions.

St. Paul (156 miles), the capital of Minnesota, and the largest city in the State, is also the capital of Ramsey County. It is upon the *Mississippi River*, at the head of navigation, 2,082 miles from its mouth.

St. Paul is one of the oldest settlements in the State. The first recorded visit to its site was made by Father Hennepin, a Jesuit missionary, in 1680. Eighty-six years afterward, Jonathan Carver came there and made a treaty with the Nadowessie Indians, in what is now known as *Carver's Cave*.

The first treaty of the United States with the Sioux, throwing their lands open to settlement, was made September 29, 1827, and the first claim was entered by Pierre Parent, a Canadian *voyageur*, who sold it in 1839, for \$30. It is the present site of the principal part of the city. He afterward sold another claim, on which the lower levee is now located. In 1840 Vetal Guerin, who in 1870 was still in St. Paul, and was its oldest settler, built a log house where *Ingersoll's Hall* stands at present; and in the same year, Father Gaultier, a Roman Catholic missionary, arrived and built a log church, which he called "St. Paul's," and from that was named the future capital of the State.

In the spring of 1849, when the Territory was organized, and St. Paul selected as the capital, there were only 30 houses in the place. In 1838 there were only three white inhabitants. In 1846, 10; in 1848, about 50; in 1849, 400; in 1850, 1,112; in 1857, 9,073; in 1860, 10,277; in 1865, 13,110; in 1870, 20,045. The city is peculiarly situated at three different elevations, the lowest being the levee, and a stretch of bottom-land, formed by a depression of the cliffs, through which a small mill-stream enters the Mississippi. The main portion of the place stands upon a plain which forms the summit of a bluff of sand and limestone about 100 feet above the river, presenting for a long distance a precipice of white sandstone, with a narrow beach at the river's edge, from which it was called by the Dakota Indians *Imminijaska*, or White Rock. The third level is

that of the hills which form an amphitheatre around three sides of the city, rising to the level of the high prairie-lands. These heights are occupied by residences.

The geological formation of the city is so peculiar as to excite the wonder of even unscientific persons. To the south of Robert Street the soil is deep, sandy, and free from stones; at Robert Street is a quantity of bowlders and drift, and a few yards to the north is a horizontal stratum of limestone reaching to the surface, and underlain by the soft white sandstone of the bluff. The upper layers of the limestone are thin, soft, and friable, but, at from 3 to 4 feet below the surface, are so thick and hard as to answer for foundation walls, and at from 6 to 8 feet the blue magnesian limestone of which the principal stores are built is reached. For several blocks every store is built out of the stone obtained in digging or rather blasting its cellar. *Ingersoll's Hall* is one of these buildings; the surplus stone procured in quarrying the cellar was sold for enough to pay the entire expense of making the excavation. The white sandstone which hardens upon exposure to the air is as easily excavated as dense sand, and consequently there is but little expense in making sub-cellars.

There are three good hotels in St. Paul. The *Merchants'*, which is the nearest to the depots and the levee, is a large building of blue magnesian limestone.

The *Park Place*, which is back on the hills, surrounded by trees, is a pleasant family hotel.

The *Metropolitan* is on Third Street, in the upper portion of the city, having a fine view of the river. The building is very handsome, and the interior arrangements are quite in keeping with the exterior.

The principal places of amusement are the *Opera-House* and *Ingersoll Hall*, each seating about 1,200 persons.

The *Opera-House*, which is on Wabash Street, near the corner of Third, is in a brick building, which also contains the *Post-Office*. The auditorium is prettily fitted up, and the stage is well supplied with scenery and mechanical effects. The building, etc., cost \$50,000.

Ingersoll Block, corner of Third and

Wabashaw Streets, is built of blue magnesian limestone. The first story contains stores and a bank; the second, offices and the St. Paul Library, of about 4,000 volumes; and the third story, *Ingersoll Hall*, which is used for lectures, concerts, etc.

There are 18 or 20 churches in the city, some of them large and handsomely finished.

The *State Capitol*, situated on high ground, and occupying an entire square, is of brick, and is by no means an elegant building. It contains the State offices, the legislative chambers, the *State Law Library*, and the collection of the State Historical Society, which can be seen on any day between the hours of 10 and 12, and 2 and 5 o'clock. In the second story is a glass case of battle-flags carried by the Minnesota regiments during the civil war.

There are several large public schools in the city, *St. Joseph's Roman Catholic Academy*, and other private schools and seminaries. The *State Reform School* is near the city.

There is a free hospital managed by the Sisters of St. Joseph, and a Protestant and a Roman Catholic orphan asylum.

Several newspapers are published in the city; three of them being daily. The *Pioneer* and the *Press*, two of the best in the West, are the organs respectively of the Democrats and Republicans of this locality. The *Press* occupies with its various departments the whole of a large stone building on Third Street. It is a very complete and well-managed establishment.

St. Paul Bridge, 1,730 feet long, is worth seeing. It is of wood resting upon stone piers, and is an inclined plane descending from the high bluff at the foot of Wabashaw Street to the bottom lands of *West St. Paul*. The largest steamers can pass under it.

Carver's Cave is a great natural curiosity, near the river in Dayton's Bluff, at the eastern side of the city, below the brewery. It is named after Captain Jonathan Carver, who, on the 1st of May, 1767, made a treaty with the Indians by which was ceded to him a large tract of land. The treaty, however, was not ratified by the government. Carver has

given a graphic description of the cave, although in somewhat exaggerated terms; but as his description has become historical, and as the cave is now just as he found it, with the extra attraction of containing a boat in which the water can be crossed and the cave examined, we give it as he wrote it:

"About 30 miles below the Falls of St. Anthony, at which I arrived the tenth day after I left Lake Pepin, is a remarkable cave, of an amazing depth. The Indians term it *Wakan-Teebe*; that is, the Dwelling of the Great Spirit. The entrance into it is about 10 feet wide, the height of it 5 feet. The arch within it is near 15 feet high, and about 30 feet broad. The bottom of it consists of fine, clear sand. About 20 feet from the entrance begins a lake, the water of which is transparent, and extends to an unsearchable distance, for the darkness of the cave prevents all attempts to acquire a knowledge of it. I threw a small pebble toward the interior parts of it with my utmost strength. I could hear that it fell into the water, and notwithstanding it was of so small size, it caused an astonishing and horrible noise, that reverberated through all those gloomy regions. I found in this cave many Indian hieroglyphics, which appeared very ancient, for time had nearly covered them with moss, so that it was with difficulty I could trace them. They were cut in a rude manner upon the inside of the walls, which were composed of a stone so extremely soft that it might be easily penetrated with a knife—a stone everywhere to be found near the Mississippi. The cave is only accessible by ascending a narrow, steep passage that lies near the brink of the river."

Fountain Cave, near the stone brewery, just above the city, is apparently hollowed out of the rock by a stream which flows through it. It contains two or three apartments, the largest being 100 feet long, 25 feet wide, and 20 feet high.

There are some beautiful drives in and around St. Paul. The visitor who wishes to see as much as possible, in a short space of time, should hire a carriage at one of the livery stables, and pursue the following course: Let him drive to *Dayton's Bluff*, on the east side of St. Paul,

taking in a comprehensive glance at the city and river, and the beautiful hills around, obtain a view of the Indian mounds on the Bluff, and visit *Carver's Cave*; returning by way of the handsome residences of General Sibley, Horace Thompson, and others. Next let him drive to the capitol by way of Seventh and Washaw Streets, pass up Tenth Street and out of College Avenue to St. Anthony Hill, thence through Summit Avenue. Then let him drive up Western Avenue, and return by St. Anthony Street, and take a ride up Fort Street, returning by Third Street. The roads leading from the city are good.

The following railways centre at St. Paul: *Milwaukee & St. Paul (Minnesota Division and St. Paul & Chicago Division)*; *St. Paul & Sioux City*; *St. Paul & Pacific*; *West Wisconsin Railway*; and the *Lake Superior & Mississippi*. Lines of steamers to all parts of the Mississippi, Minnesota, and St. Croix Rivers, connect with the railways.

There are many places in the neighborhood of the city which can be reached either by pleasant drives or by rail. Of these the most popular is *White Bear Lake*, 12 miles distant, on the *Lake Superior & Mississippi Railway*. It is about 9 miles in circumference, with picturesque shores and an island in its centre. The *Leip House* and the *South-Shore House* are good hotels to stay at for a few days. The lake affords capital boating, fishing, and bathing.

Minnchaha Falls, immortalized by Longfellow, are reached by a delightful drive past *Fort Snelling*, where the Mississippi is crossed by a rope-ferry. There is a fair hotel in the place. Minnehaha is certainly the most beautiful spot near St. Paul, but hardly merits the prominence which Mr. Longfellow's poem has obtained for it.

Fort Snelling, 2 miles below Minnehaha, is on the verge of the high bluff at the point where the *Minnesota* empties into the *Mississippi*. It is the oldest settlement and Government-post in Minnesota, having been established in 1820 by a detachment of the Fifth United States Infantry, under the command of Colonel Josiah Snelling, after whom it was named. Since then, except from 1857 until 1861,

when there were no troops there, it has been a military post. It is so built as to be a complete defence against the Indians, but would be unable to withstand the assaults of civilized troops. The fort presents a picturesque appearance, from whatever point it is seen, and from its bastions superb views are had of the Mississippi and Minnesota Valleys.

Lake Como is reached by a pleasant drive of $2\frac{1}{2}$ miles, over a good road. The town is on a small sheet of water, not particularly well stocked with fish, but a favorite place for sailing and bathing. On the lake are two hotels, which are well filled by visitors during the summer.

Phelan's Lake, where there is excellent fishing, is only $3\frac{1}{2}$ miles from St. Paul, by rail. It is fed by springs and small streams, and will afford an unfailing supply of water for the latter place, when the works now constructing are completed; as the lake is about 100 feet above the city, no pumping machinery will be needed.

Bald-Eagle Lake, $2\frac{1}{2}$ miles beyond White Bear Lake, is noted for its fishing and picturesque scenery. It is a favorite resort for picnic parties. St. Anthony and Minneapolis are always visited by tourists. They will be described in the chapter on Minnesota.

THE MISSISSIPPI RIVER.

This is the most important river in North America, as is implied by its name, which, translated, is "Father of Waters." It rises in Minnesota, on the dividing ridge between the waters which flow into Hudson's Bay and those running to the Gulf of Mexico, and so near to the source of the *Red River of the North* that, in times of extraordinary floods, their waters have been known to commingle. It is, at its source, 3,160 miles from its mouth, a rivulet flowing from a small pool fed by springs. Thence it flows through a number of pools or ponds, each larger than the preceding one, until it expands into *Itasca Lake*, whence it emerges as a stream of some size, and, continually increasing, soon becomes a river. It first flows northward, through *Cass*, *Winnipeg*, and other lakes, and then, turning to the south, rolls downward to the Gulf

of Mexico, passing over more than 18 degrees of latitude. Between the source and the Falls of St. Anthony are many rapids and water-falls, but the only one of any magnitude is the *Pecagama Rapids*, 685 miles above St. Anthony. Here the river is but 80 feet wide, and runs over a sandstone bed, inclined at an angle of 40 degrees, descending 20 feet in 300 yards. From these rapids down to St. Anthony's Falls, the river is navigable, and much of the scenery is very beautiful. The *Falls of St. Anthony* (which will be described in the chapter of Minnesota) form an insuperable barrier to navigation, and, between them and St. Paul there is so much difficulty in keeping in the channel, that no steamers ever go above St. Paul, except those running up the *Minnesota River*, and all of these are small and of light draught. The river, from St. Paul to Dubuque, passes between abrupt and lofty bluffs, distant from each other from two to six miles, and rising from 100 to 600 feet, the valley or bottom being very beautiful, filled with islands, and intersected, in every direction, by tributaries of the Mississippi, and by the various canals and "sloughs" (pronounced "slews") of the river itself.*

The bluffs are principally of limestone; they are almost uniformly vertical and rugged, being nearly destitute of vegetation, except at the base and the summit. The limestone is generally of a grayish-white, but is stained and streaked until it is of every hue, from that of iron-rust to that of the white cliffs of St. Paul. The action of the weather, too, has worn the stone into extraordinary shapes, some of which are so like the work of human hands that it is difficult to believe they are not what they seem, castles, forts, monuments, chimneys, churches, and statues. There are grandeur and sublimity in every mile of this portion of the river; but it becomes monotonous, and the eye becomes surfeited with too much beauty. We shall therefore not attempt

a verbal panorama of the river. Below Dubuque, the valley continues to preserve the same general characteristics, but the bluffs are lower and more of a hilly character, and the scenery, though still beautiful, is tamer. Throughout the whole of this trip one sees much to remind him of the Hudson, but the latter is not so beautiful. Below Alton the country begins to assume more of the appearance of the "Lower River" (as the portion below St. Louis is called), and the waters, now turbid and muddy, roll on a mighty torrent between banks often low, flat, and sandy, and the vegetation continually more and more tropical in its nature. As this portion of the Mississippi is fully described in the *SOUTHERN TOUR* of the *HAND-BOOK OF AMERICAN TRAVEL*, no further reference to it is necessary in this place.

PLACES BETWEEN ST. PAUL AND ST. LOUIS.

LANDINGS.	MILES.	
St. Paul.....	0	0
Hastings, Minn.....	32	32
Point Douglas, Minn.....	3	35
Month St. Croix River.....		
Prescott, Wis.....	1	36
Red Wing, Minn.....	23	64
Head Lake Pepin.....	2	66
Frontenac, Minn.....	16	82
Maiden Rock, Wis.....	3	85
Lake City, Minn.....	8	93
North Pepin, Wis.....	5	98
Reed's Landing, Minn.....	8	106
Wabashaw, Minn.....	6	112
Alma, Wis.....	10	122
Minneiska, Minn.....	14	136
Mount Vernon, Minn.....	4	140
Fountain City, Wis.....	14	154
Winona, Minn.....	12	166
Trempealeau, Wis.....	17	183
Richmond, Minn.....	5	188
La Crescent, Minn.....	16	204
La Crosse, Wis.....	2	206
Brownsville, Minn.....	12	218
Bad Axe City, Wis.....	16	234
Victory, Wis.....	10	244
De Soto, Wis.....	10	254
Lansing, Iowa.....	6	260
Lynxville, Wis.....	16	276
Prairie du Chien, Wis.....	14	290
McGregor, Iowa.....	3	293
Clayton, Iowa.....	11	304
Guttenburg, Iowa.....	12	316
Cassville, Wis.....	10	326
Buena Vista, Iowa.....	4	330
Potosi Landing, Wis.....	15	345
Dunleith, Ill.....	14	359
Dubuque, Iowa.....	1	360
Galena, Ill.....	20	380
Bellevue, Iowa.....	12	392
Savanna, Ill.....	23	415
Sabula, Iowa.....	3	418
Lyons, Iowa.....		
Fulton, Ill.....	20	438

[*A "slough" is a false channel. It is often impossible for any but an experienced pilot to tell one from a regular channel. At high water, sometimes, much time can be saved by steamers using these sloughs, which are often more direct than the channels.]

LANDINGS.		MILES.
Clinton, Iowa.....	2	440
Albany, Ill.....	6	446
Camanche, Iowa.....	3	449
Princeton, Iowa.....	10	459
Le Claire, Iowa.....	6	465
Davenport, Iowa }		
Rock Island, Ill. }	18	453
Muscatine, Iowa.....	30	513
New Boston, Ill.....	13	531
Keithsburg, Ill.....	7	538
Oquawka, Ill.....	12	550
Burlington, Iowa.....	15	565
Pontoosuc, Ill.....	17	582
Fort Madison, Iowa.....	6	588
Nauvoo, Ill.....	9	597
Montrose, Iowa.....	3	600
Keokuk, Iowa.....	12	612
Warsaw, Ill.....	4	616
Alexandria, Mo.....		
Canton, Mo.....	20	636
Lagrange, Mo.....	8	644
Quincy, Ill.....	12	656
Hannibal, Mo.....	20	676
Louisiana, Mo.....	30	706
Clarksville, Mo.....	12	713
Cap au Gris.....	37	755
Mouth Illinois River		
Alton, Ill.....	40	795
Mouth Missouri River.....	5	800
St. Louis.....	20	820

Taking one of the large and elegant steamers which run to St. Paul, we will commence our trip down the river. The first thing which will attract the attention of the traveller will be the boat itself, and its great dissimilarity to the stanch steamers built to withstand the storms of the great lakes. Instead of the massive hull and bulwarks, we have an immense flat-boat piled with freight and open at the sides, with the blazing furnaces and huge boilers in full view. Above this, resting upon posts, is the cabin, extending like a long corridor the entire length of the hull, excepting a short distance from the bow; a second cabin is often added; still higher and yet above this is the "Texas" or officers' cabin, which in turn is surmounted by the pilot-house, far above which tower the lofty smoke-stacks necessary to secure a draught for the high-pressure engines used upon all Western river-boats. Then, too, instead of being moored alongside of a substantial wharf, the boat is run "bow on" up to the levee, and the freight is carried on board on the heads and shoulders of men (generally negroes), who are called "roustabouts," or more briefly "roosters." While at work these dark-eyes are very amusing, being full of antics, and continually chanting some improvised

verses in which rhyme, and very often reason, is entirely ignored. The effect of this singing at night is peculiar and very pleasing.

The hour for starting having arrived, the steamer swings out into the stream; the band (for there usually is one on every first-class boat) strikes up a lively air, adieus are shouted by parting friends, and we are upon the mighty river. Looking back, we obtain a fine view of the beautiful city and the white cliff upon which it stands, with the great bridge spanning the stream. The railroad depots are quickly passed, and, soon turning a bend, we have nothing left of St. Paul but the memory of the visit.

Half a dozen small villages are passed in the first 30 miles. One of them is somewhat noticeable on account of its name "*Red Rock*," which was given by the Indians, who worshipped a large rock at this point, which they painted red and called *Wakon*, or Spirit Rock. It is 7 miles below St. Paul.

Hastings, Minn. (32 miles), the capital of Dakota County, is the first town we pass of any importance. It is situated at the mouth of *Vermilion River*, which falls 110 feet within half a mile, furnishing a fine water-power. A large business is done in this place, it being the market and shipping-point for a large part of the county. Hastings was laid out in 1856, and now has a population of over 3,000. The *Hastings & Dakota Branch* of the *Milwaukee & St. Paul Railway* terminates here, and the *St. Paul & Chicago Division* of the same railway crosses the river at this point. The *Vermilion Falls* are very beautiful and well worth visiting.

Point Douglas, Minn. (35 miles), is the last point of Minnesota on the eastern bank of the river, as the *St. Croix River*, which empties here, marks the boundary-line of Wisconsin, between which State and Minnesota the Mississippi now forms the boundary for many miles.

Prescott, Wis. (36 miles), is divided from Point Douglas by the *St. Croix River*. It is the capital of Pierce County, and is built upon a high bank sloping back from the river's edge to the summit of the bluffs. Its population is about 1,500.

Red Wing, Minn. (64 miles), the capital of Goodhue County, is finely situated at the head of *Lake Pepin*, on a broad level plain extending to the foot of the bluffs. It was formerly an Indian village, and received its name from a Sioux chief. It is a place of some importance, the port and market of a large and fertile region, and considerable manufacturing is done here. The population is about 4,000, and rapidly increasing. The *Chicago & St. Paul Branch of the Milwaukee & St. Paul Railway* connects Red Wing with St. Paul.

Lake Pepin is an expansion of the river about 30 miles long, having an average breadth of 3 miles. By many it is considered the most beautiful portion of the Mississippi. The bluffs on either side present peculiar characteristics, which are found in such perfection nowhere else; grim castles seem only to want sentries to be perfect, and all the fantastic forms into which the action of the weather can transform limestone cliffs are to be seen. For miles the bluffs are indented with huge amphitheatres almost as perfect in form as if designed for huge audiences, the land rising to the level of the projecting bluffs which form the portals, the curve being apparently as true as that of any theatre ever built. The forests reach to the river-bank, and the water is so beautifully clear that fish may be seen many feet below the surface.

Passing down the lake we come to *Barn Bluff*, just below Red Wing, a well-known landmark 200 feet high, and we see *Rush River* and *Cannon River* enter the lake, the former from Wisconsin and the latter from Minnesota.

Frontenac, Minn. (82 miles), is a favorite resort for invalids and pleasure-seekers, on account of its fine scenery, hunting, bathing, fishing, and sailing. Besides the sport afforded by *Lake Pepin*, there are fine trout-fishing in the streams and deer-hunting in the woods of Wisconsin, on the opposite bank of the river. There are prairie-chickens in abundance to be found in the country at the back of the village. On the beach is a bathing-house for ladies.

Maiden Rock, Wis. (85 miles), is a promontory 499 feet high, near the

lower end of the lake. Its name is derived from an incident which is reported to have happened about the commencement of the present century. A young Dakota maiden named Winona loved a young hunter; but her parents wished her to marry a warrior of the Wabashaw tribe, to which they belonged, and tried to compel her to accede to their wishes. On the day before that appointed for the marriage she went to the verge of this precipice and commenced chanting her death-song. Her relatives and friends seeing her on the brink of destruction, called to her that they would yield to her wishes; but she did not believe them, and before any one could reach her she leaped over the precipice and was dashed to pieces on the rocks below. The village on the lake-shore is also named *Maiden Rock*.

Lake City, Minn. (93 miles), stands upon a level plain at the base of the bluffs. In 1689, Perrot built a stockade near here. Carver says that in 1766 he saw upon this prairie "the largest buffaloes of any in America." The town was laid out in 1856, and is now the port of a rich farming district. Population about 2,500.

Reed's Landing, Minn. (106 miles), is at the foot of *Lake Pepin*, where the river again contracts, and is opposite the mouth of the *Chippewa River*, a navigable lumbering river, from which a large trade is brought to Reed's.

Wabashaw, Minn. (112 miles), the capital of the county of the same name, does a large grain-shipping business with Chippewa Valley. It is the proposed terminus of the *Green Bay & Wabashaw Railway*.

Minneiska, Wis. (136 miles), at the mouth of the *Whitewater*, and

Fountain City, Wis. (154 miles), each a village of 500 or 600 inhabitants, are passed, and after 12 miles of remarkably fine scenery, in which we see bluffs conical in form and covered with verdure, others with vertical fronts, and worn by the weather into most fantastic shapes, the river, lake-like, and almost filled with islands, we come to Winona.

Winona, Minn. (166 miles), the capital of the county of the same name, is charmingly situated on a plain com-

manding a view of the river for several miles. It is the largest wheat-market in the State, and contains the State Normal School, the building for which has cost \$100,000, several fine churches, and numbers of handsome stores and private residences. It was settled in 1851, incorporated in 1857, and now has a population of about 8,000. The *Winona & St. Peter Railway*, which has one of its terminal stations here, together with several other roads now constructing, will make Winona one of the railway centres of the Mississippi Valley.

Trempeleau, Wis. (183 miles), is located in the midst of very fine scenery. It is the port and market of a rich agricultural region. Population about 1,000.

Mountain Island (188 miles), a high rocky island, is one of the most noted landmarks on the Upper Mississippi. Its altitude varies from 300 to 500 feet.

La Crosse, Wis. (206 miles), the capital of La Crosse County, is an important place, doing a large trade. It is situated at the mouth of the *La Crosse River*. Among other handsome buildings, it has a court-house which cost \$40,000, and has good schools and churches. The boat-yard of the *Northwestern Union Packet Company* employs a large number of men, and there is much manufacturing done in the city. The *Milwaukee & La Crosse Division of the Milwaukee & St. Paul Railway* and the *Southern Minnesota Railway* connect here.

The *Black River*, a navigable river running through a fine lumber-region, empties into the Mississippi a few miles above La Crosse, and is another of the channels through which business flows to that city.

La Crescent, Minn., opposite La Crosse, is a growing village of about 600 inhabitants.

Brownsville, Minn. (218 miles), is the last stopping-place in the State. It is a shipping-point of some importance, with a population of about 800. Five miles above, the *Kokah* or *Root River* empties from Minnesota, and five miles below *Raccoon River* enters from Wisconsin.

Bad Axe, Wis. (234 miles), at the

mouth of *Bad Axe River*, is a small village upon one of the battle-fields of the Black Hawk War. A short distance below, the *Upper Iowa River*, which rises in Minnesota, crosses the northeastern corner of Iowa.

Lausang, Io. (260 miles), the capital of Allomakee County, a place of about 2,000 inhabitants, ships large quantities of wheat and produce.

Prairie du Chien, Wis. (290 miles), the capital of Crawford County, about four miles above the mouth of the *Wisconsin River*, occupies the site and bears the name of an old Indian village. It was settled more than a century ago. The prairie upon which it stands is one or two miles wide, stretching back from the river to the bluffs. The city has several churches, schools, and good hotels, and is an important local shipping-point. The *Prairie du Chien Division of the Milwaukee & St. Paul Railway* connects at this place by ferry with the *Iowa and Minnesota Divisions*; all steamers stop at Prairie du Chien in passing. The population is about 4,000.

McGregor, Io. (293 miles), was laid out in 1845 by Alexander McGregor. It was a very small village until the construction of the *Milwaukee & St. Paul Railway*, which has given it quite an impetus. The population is about 2,500, and is rapidly increasing.

Clayton, Io. (304 miles), is a bustling town of about 1,000 inhabitants. We now enter the lead-region, mines having been opened near this place.

Guttenberg, Io. (316 miles), the port for a rich farming and lead-mining district, was founded by a colony of Germans. It has a population of about 1,400.

Cassville, Wis. (326 miles), is the shipping-point of large quantities of lead and produce. At the time Wisconsin Territory included Iowa, this was the capital. Opposite the town is the mouth of *Turkey River*, which is 150 miles long, and not navigable for steamboats.

Potosi, Wis. (345 miles), the last landing in this State, is on *Grant River*, two miles above its mouth. The town cannot be seen from the steamer. It is picturesquely situated in a narrow and deep valley or ravine about three miles long, and

is an important depot for the rich lead-mining district which surrounds it. The population is about 2,500.

Dunleith, Ill. (359 miles), is the first landing in the State. It is a village at the terminus of the *Illinois Central Railway* and of a division of the *Chicago & Northwestern Railway*, where connections are made by ferry with the railways running west from Dubuque.

Dubuque, Io. (360 miles), the capital of the county of the same name, is the largest city in the State. It is built partly upon a terrace 20 feet above high-water mark, and partly upon the bluffs which rise about 200 feet, the effect being that the lower or business portion of the city is regularly laid out and compactly built, while the upper portion picturesquely rises street above street. Julian Dubuque, after whom the city is named, came here in 1788, but the Indians drove his colony away, and no permanent settlement was effected until 1833. Among the public buildings in the city worthy of note are the Market-House, the City Hall, the United States Custom-House, the Episcopal Seminary, and three of the public schools. There are, also, 18 or 20 churches, some of which are quite handsome. Dubuque is the commercial centre of the great lead-region of Iowa, Northwestern Illinois, and Southwestern Wisconsin. The *Iowa Division of the Illinois Central Railway* and the *Dubuque & Southwestern Railway* connect here, and all river-steamers stop at the landing. Population about 20,000.

Galena, Ill. (380 miles), is on the *Fèvre River*, six miles from its mouth. As large steamers seldom ascend the river as far as this, Galena should be treated as a railway-station rather than as a steamboat-landing. It will be described under the heading of Route IV. of ILLINOIS. (See page 198.)

Bellevue, Io. (392 miles), the capital of Jackson County, has one of the finest landings on the river. It stands upon a bank some 30 feet above high-water mark. Eight miles below, *Makogueta River* enters the Mississippi from the west.

Savannah, Ill. (415 miles), is a short distance above the mouth of Plum Creek. It has a good landing, and is the

shipping-port for a large amount of produce. Savannah is also a station on the *Western Union Railway*.

Lyons, Io. (438 miles), is a place of considerable business, and by means of the *Chicago & Northwestern Railway*, which crosses the Mississippi just below, has railway communication both east and west. It contains several churches, a female college, and an excellent graded school. *Fullton, Ill.*, nearly opposite, is described in Route XII. (See page 73.)

Clinton, Io. (440 miles), and the bridge across the Mississippi, are described in Route XII. (See page 73.)

Camanche, Io. (449 miles), is a lively shipping-port, with a population of about 1,500.

Le Clair, Io. (465 miles), is a place of active trade at the head of the Upper Rapids, which have already been described under the heading of Rock Island. The descent of the rapids is exciting, but dangerous; several steamers have come into collision with the bridge and have been lost.

Rock Island, Ill., and Davenport, Io. (483 miles), have been described in Route XIII. (See pages 76 and 77.)

Muscatine, Io. (513 miles), the capital of Muscatine County, is built on the summit of bold, rocky bluffs, for 40 miles before reaching which, the river runs almost due west, but is deflected by them toward the south, forming a huge bend at the apex, on which the city is situated. Muscatine was originally an Indian trading-post named *Manatheka*; in 1836 it was settled by the whites, and received its present name. The place has a large general trade, and engages extensively in the manufacture of lumber. It is a station on a *Branch of the Chicago, Rock Island & Pacific Railway*.

Keithsburg, Ill. (538 miles), is a prosperous little shipping-port, formerly the capital of Mercer County.

Oquawka, Ill. (550 miles), the capital of Henderson County, has an active trade. It is the terminus of a *Branch of the Chicago, Burlington, & Quincy Railway*.

Burlington, Io. (565 miles), has been described in Route XIV. (See

page 79.) The river here is broad and beautiful.

Fort Madison, Io. (588 miles), the capital of Lee County, a prosperous place, is beautifully and healthfully situated upon the site of a fortification built in 1808 as a protection against the Indians. In 1813 the latter compelled the garrison to evacuate it and burn it. The city contains the Iowa State Prison, some handsome churches, and several manufactories. It is connected with the opposite bank of the river (here nearly a mile wide) by several ferries. Fort Madison is on the *Burlington & Keokuk Division of the Chicago, Burlington & Quincy Railway*.

Nauvoo City, Ill. (597 miles), a notable place in American history, is upon one of the most beautiful situations on the river, the ground rising regularly with a gentle slope to a wide plateau at the summit. In 1840 it was selected by the Mormons as their future home, and at one time had a population of about 18,000. The dwellings were mostly log cabins, but *The Temple* cost over \$500,000. It was built of polished limestone; was 130 feet long, by 88 feet wide; 65 feet to the cornice, and 163 feet to the top of the cupola. The basement contained the "Baptistry," an immense stone basin, supported by 12 colossal oxen. In June, 1844, the prophet Smith and some of his followers, who had been arrested on a trumped-up charge, were taken from jail and murdered by a mob. In 1848 the temple was fired by an incendiary, and destroyed, and the Mormons were expelled from the State, whence they went to Utah. A company of French socialists now inhabit the place. They are but few in numbers; only here and there the houses being occupied.

Montrose, Io. (600 miles), is at the head of the "Lower Rapids," and is the point for lightering the large steamers when a low stage of water renders navigation dangerous. It is on the *Burlington & Keokuk Division of the Chicago, Burlington & Quincy Railway*.

Keokuk, Io. (612 miles), has been described in Route XV. (See page 82.)

Warsaw, Ill. (616 miles), has been described in Route XV. (See page

82.) The *Des Moines River*, the boundary between Iowa and Missouri, enters the Mississippi nearly opposite Warsaw.

Alexandria, Mo., is on *Fox River*, which enters the Mississippi about two miles below the Des Moines. It has a population of about 1,000, but is greatly hindered in its growth by the frequent inundations to which it is subjected.

Canton, Mo. (636 miles), is one of the principal shipping-places of Lewis County. The population is over 2,000.

Quincy, Ill. (656 miles), the capital of Adams County, is a beautiful city, standing on a limestone bluff, 125 feet above the river. It has a public square, a good court-house, several churches, ten public halls, two daily and four weekly papers. The country in the vicinity is a rich rolling prairie, and is highly cultivated. The city does a large shipping-business both by rail and river, and is also something of a manufacturing place. The Quincy Division of the *Chicago, Burlington & Quincy Railway* terminates here, connecting by branch to Palmyra with the *Hannibal & St. Joseph Railway*.

Hannibal, Mo. (676 miles), has been described in Route XVI. (See page 85.)

Louisiana, Mo. (706 miles), is a village of 3,500 inhabitants, containing a number of stores, warehouses, etc. It is two miles below the mouth of *Salt River*.

Cap au Gris (755 miles) is the point at the mouth of the *Illinois River*.

Alton, Ill. (795 miles), stands upon a high, hard-limestone bluff. If, as has been suggested, "the powers that be" should cut away some 200 acres of the point of land between the city and the mouth of the Missouri, the river would hurl its raging torrent in vain against the magnificent bluff, and would be a little weakened in its onslaughts on the shores below. This may some time be done. Alton has, among many other churches, a large Roman Catholic cathedral, this city being the seat of a diocese embracing Southern Illinois. The State Penitentiary was originally located here, but it was removed several years since to Joliet. Alton has rare natural advantages. With two mighty rivers at its feet, and an abundance of coal and limestone in the vicinity, it is the centre of

a rich farming country, the produce of which here finds a market. To these add the artificial advantages in the two great railways, the *Chicago & Alton*, and the *Indianapolis & St. Louis*, which connect here, and the many others reaching the city by means of those named, and we find it has all the elements for the growth of a large city.

"The Meeting of the Waters" of the *Missouri and Mississippi Rivers* occurs 3 miles below Alton. This has been pronounced one of the grandest single views of river scenery in the country. The Missouri technically empties into the Mississippi, but it is really the Mississippi that empties, as any one can see who ever looks upon the scene. The late Charles H. Sweetser, in his "Book of Summer Resorts," thus describes his own visit to his place on the afternoon of a beautiful May day: "We reached the point where the two streams meet and seek to mingle, just as the setting sun, surrounded but not hidden by clouds of sombre face but silvery lining, was casting his last golden rays upon the water. It may not be the good fortune of every one to enjoy so fine a phase of the sunlight; but to stand upon the deck of your steamer, looking upon the one side at the placid Mississippi, clear and limpid, flowing beautifully toward the sea; and on the other at the foaming Missouri, rushing down upon the channel of its fellow with a muddy, furious torrent that sweeps all before it, and destroys forever all traces of that gentle stream; this is delight unbounded, and may be shared by all who journey over the Mississippi waters. Years ago, there stood upon the eastern bank, just at the confluence, the village of Chippewa, a place of some little population and business; but the tremendous vehemence with which the Missouri cast itself upon the clayey bank proved too much for it to stand, and the land has gone down the river to seek the ocean, along with the other accretions from the north, and also the south. All along the line of our short sail we may behold the same process almost actually going on before us. The banks, soft and yielding, are losing on the one side (and increasing on the other in a less proportion), as the rapid current, knife-

like, cuts off great slices, carrying down trees, fences, any thing that unwarily remains to withstand such a foe. It is a most singular and a most impressive sight. We do not wonder that the Indians selected for their title of the river a name which, while it robs us of any solemnity with which the scene might inspire us, certainly conveys to the mind the character of the work done, and the result—the Missouri is the 'mud river.'"

St. Louis, Mo. (820 miles), is reached after 20 miles of travel on the now turbid river. We have completed our journey of 2,211 miles from Buffalo, all but 156 miles of which has been by water. We are now at one of the great continental centres whence we can go at will in any direction. St. Louis is fully described in Route VII. (See page 46.)

This tour will require about five days, and the ticket (including meals) will cost about \$75.

TOUR II.

PITTSBURG, PENNSYLVANIA, TO ST. LOUIS, MISSOURI.

Via Ohio and Mississippi Rivers.

LANDING.	MILES.
Pittsburg, Pa.....	0
Economy, Pa.....	19 19
Freedom, Pa.....	5 24
Beaver, Pa.....	4 28
Wellsville, O.....	20 48
Steubenville, O.....	20 68
Wellsburg, W. Va.....	6 74
Wheeling, W. Va. }	16 90
Bridgeport, O. }	
Bellaire, O.....	4 94
Elizabethtown, W. Va. }	7 101
Big Grave Creek, W. Va. }	
Sistersville, W. Va.....	35 136
Marietta, O.....	35 171
Parkersburg, W. Va. }	12 183
Belpre, O.....	
Blennerhassett's Island.....	2 185
Pomeroy, O.....	64 249
Point Pleasant, W. Va. }	14 263
Great Kanawha River }	
Gallipolis, O.....	4 267
Guyandotte, W. Va.....	36 303
Burlington, O.....	8 311
Big Sandy River }	3 314
Catlettsburg, Ky. }	
Ashland, Ky.....	6 320
Ironton, O.....	5 325
Hanging Rock.....	2 327
Greensburg, Ky.....	6 333
Portsmouth, O. }	20 353
Sciota River }	
Rome, O.....	23 381
Manchester, O.....	13 394
Maysville, Ky. }	
Aberdeen, O. }	11 405
Ripley, O.....	9 414

LANDINGS.	MILES.
Augusta, Ky.....	10 424
Point Pleasant, O. }	
Belmont, Ky.....	17 441
New Richmond, O.	5 446
Little Miami River, O.	14 460
Cincinnati, O. }	
Newport & Covington, Ky. }	6 466
North Bend, O.	17 483
General Harrison's Grave }	
Great Miami River.....	4 487
Lawrenceburg, Ind.....	2 489
Aurora, Ind.....	4 493
Rising Sun, Ind.....	9 502
Big Bone, Lick Creek, Ky.....	10 512
Warsaw, Ky.....	11 523
Vevay, Ind. & Ghent, Ky.....	10 533
Carrollton, Ky.....	8 541
Madison, Ind.....	12 553
Jeffersonville, Ind. }	
Louisville, Ky.....	45 598
Portland, Ky. }	
New Albany, Ind.	5 603
Salt River & West Point, Ky.....	21 624
Brandenburg, Ky.....	16 640
Leavenworth, Ind.....	18 658
Roane, Ind. }	
Stephensport, Ky. }	37 695
Cloverport, Ky.....	10 705
Cannelton, Ind. }	
Hawesville, Ky. }	12 717
Rockport, Ind.....	23 740
Owensborough, Ky.....	9 749
Green River, Ky.....	26 775
Evansville, Ind.....	8 783
Henderson, Ky.....	12 795
Mount Vernon, Ind.....	13 818
Uniontown, Ky.....	14 832
Wabash River.....	6 838
Shawneetown, Ill.....	9 847
Caseyville, Ky.....	13 860
Cave in Rock, Ill.....	9 869
Elizabethtown, Ill.....	8 877
Golconda, Ill.....	13 890
Smithland, Ky.....	18 908
Paducah, Ky.....	12 920
Metropolis City, Ill.....	9 929
Caledonia.....	22 951
Mound City, Ill.....	8 959
Cairo, Ill., and mouth of Ohio River....	8 967
Commerce, Mo.....	28 995
Thebes, Ill.....	6 1001
Cape Girardeau, Mo.....	9 1010
Willard's Landing, Ill.....	15 1025
Devil's Tea Table, and Cornice Rocks...	1 1026
Grand Tower, Ill.....	13 1039
Chester, Ill.....	34 1073
St. Genevieve, Mo.....	16 1089
Fort Chartres, Ill.....	11 1100
Herculanum, Mo.....	16 1116
St. Louis, Mo.....	33 1149

THE OHIO RIVER.

The Ohio is formed by the junction of the Alleghany and Monongahela, the former being navigable for keel-boats as far as Olean, in the State of New York, a distance of about 250 miles; the latter is navigable for steamboats to Browns-

ville, 60 miles, and by keel-boats upward of 175 miles. These two streams unite at Pittsburg and form the Ohio, which after a course of 1,000 miles unites its waters with those of the Mississippi. No other river of the same length has such a uniform, smooth, and placid current. Its average width is about 2,400 feet, and the descent, in its whole course, is about 400 feet. At Pittsburg it is elevated about 1,150 feet above the ocean. It has no fall, except a rocky rapid of 22½ feet descent at Louisville, around which is a canal 2½ miles long, with locks sufficiently capacious to admit large steamboats, though not of the largest class. During half the year this river has a depth allowing of navigation by steamboats of the first class through its whole course. It is, however, subject to extreme elevations and depressions. The average range between high and low water is probably 30 feet. The highest stage of water of the Ohio is in March, and its lowest in July and August, when navigation is greatly impeded by sand-bars and other obstructions. The variations of level in time of floods are very rapid, and the river, at Cincinnati, has been known to rise at the rate of over a foot an hour for many hours in succession. Various estimates have been made of the rapidity of its current, but, owing to its continually varying, it would be difficult to assign any very exact estimate. Between Pittsburg and its mouth it is diversified by many large-sized islands, some of which are of exquisite beauty. The passages between some of these and the sand-bars at their head are among the difficulties of the navigation of the Ohio. Most of the obstructions have been overcome by means of dams that throw all the water into narrow channels. In the infancy of the country, every species of water-craft was employed in navigating this river, some of which were of the most whimsical and amusing description. The barge, the keel-boat, the Kentucky-flat or family-boat, the pirogue, ferry-boats, gondolas, skiffs, dug-outs, and many others, formerly floated in great numbers down the currents of the Ohio and Mississippi Rivers to their points of destination, at distances sometimes of 3,000 miles. Owing to the

difficulties of navigating the river between Pittsburg and Cincinnati, and the facilities of speedy communication between these cities by rail, the amount of through-travel is comparatively small. The traveler, as he descends this noble river in the spring of the year—when its banks are full, and the beautiful red-bud and *Cornus Florida* deck the declivities of the bluffs, which sometimes rise 300 feet in height, impend over the river, and cast their grand shadows into the transparent waters, and are seen at intervals in its luxuriant bottoms, while the towering sycamore throws its venerable and majestic arms, decked with rich foliage, over the other trees—will readily acknowledge the appropriateness of the title which the early French explorers gave to it, *La Belle Rivière*.

The tourist should first take a packet for Wheeling. This will afford an opportunity to see all objects of interest in that city before the connecting packet departs. Then take a packet for Parkersburg, where connection will be made with some one of the fine steamers running to Cincinnati. These steamers stop sufficiently long at Pomeroy, Gallipolis, Catlettsburg, Ironton, Portsmouth, Maysville, Ripley, and other towns, to give opportunity for examining the salt, coal, nail, and iron works, at the extensive manufactories which are located along the Ohio River. At Cincinnati take a packet for Louisville; at Louisville change to a packet for Evansville, and there change to a packet for Cairo and St. Louis. The amount of baggage is seldom limited on these boats, and the care of it may be intrusted to the porter.

Economy, Pa. (19 miles), was settled in 1825, by Germans under the leadership of George Rapp. They call themselves "Harmonists," and hold all property in common. They own 3,500 acres of land, and their village, which is situated on a plain, contains a church, a museum, and manufactories of several kinds.

Beaver, Pa. (28 miles), the capital of Beaver County, is situated a little below the mouth of the river of the same name, and derives a fine water-power from the falls of the Beaver. There are numerous manufactories in and around

the town. The *Beaver Division of the Pennsylvania Canal* terminates here.

Wellsville, O. (48 miles), was laid out by William Wells, in 1824. It is an important place for the shipment of produce and wool, and contains foundries, machine-shops, and the repairing-shops of the *Cleveland & Pittsburg Railway*. Nearly opposite Wellsville, the desperate fight between Adam Poe, his brother, and a party of Indians, is said to have taken place; and two miles below, near the mouth of *Great Yellow Creek*, is the locality of the murder of the family of Logan, the Mingo chief.

Steubenville, O. (68 miles). (See page 25.)

Wellsburg, W. Va. (74 miles), the capital of Brook County, is beautifully situated on the east bank of the river. It is a busy manufacturing town, and exports large amounts of wool. Rich coal-mines are worked in the neighborhood. The town was laid out in 1789, and was originally called Charlestown, but the name was afterward changed in compliment to Alexander Wells, who built the first flouring-mills on the Ohio. Among the early settlers was Joseph Doddridge, author of the "Indian Wars of Northwestern Virginia." *Bethany*, 8 miles distant, is the seat of a college, founded in 1841, by the Rev. Alexander Campbell.

Wheeling, W. Va. (90 miles), formerly the capital of the State, and now capital of Ohio County, is situated on both sides of *Wheeling Creek*, at its mouth, and is the principal city between Pittsburg and Cincinnati. The first settlement was made in 1769, and the city now has a population of about 25,000. Wheeling is built, for the most part, upon an alluvial tract extending along the river about three miles, and shut in by hills. The beautiful wire suspension-bridge, by which the National Road here crosses the river, has one of the longest spans in the world, it being 1,010 feet. The height of the supporting-towers is 60 feet above the abutments, and 153 feet above low-water mark. Four wire cables, each 1,380 feet long, and 8 inches in diameter, support the bridge. The cost was \$210,000. A splendid railway-bridge, obviating the transfer of freight

and passengers by ferry, was completed in 1870.

As a manufacturing centre, Wheeling possesses rare advantages from its immediate proximity to large fields of coal and iron, and to the oil-regions of the State, and from its river and railroad connections. Like most manufacturing cities, it is smoky, dingy, and disagreeable. It has the following railway connections: by *Baltimore & Ohio Railway* and its branches with Baltimore, Cincinnati, and Sandusky, and by *Cleveland & Pittsburg Railway* with the two cities named. The *Hempfield Railway*, now partially completed, will be a short route to Pittsburg.

Bridgeport, O. (90 miles), contains several mills and warehouses, and does a large business in forwarding goods to the West. It is connected with Wheeling by the suspension-bridge.

Bellaire, O. (94 miles), has been described in ROUTE X. (See page 70.)

Grave Creek, W. Va. (101 miles), is the capital of Marshall County. *Big* and *Little Grave Creeks* enter the river here, leaving an interval of a mile in width, on which the village is built. It is divided into two distinct villages, of nearly equal size, namely, *Elizabethtown* and *Moundsville*, the former of which is the seat of justice. Moundsville derives its name from the *Mammoth Mound* in the vicinity, one of the largest in the United States. These mounds, which are relics of the Indians, are so common in the West that not much notice is given to them. The great one near Moundsville, which is 70 feet, and the one at Miamisburg, Ohio, which is 68 feet in vertical height, no doubt mark the graves of personages of high consequence among the builders of these monuments. The common notion that the mounds contain vast heaps of slain, and are the memorials of great battles, is wholly unsupported by facts. A very large mound was entirely removed from near St. Louis, Mo., in 1870, for the purpose of making an embankment for the approaches to the great bridge across the Mississippi. In the same vicinity there stands one which is 700 feet long, 500 feet broad at the base, and 80 feet high, covering upward of eight acres of ground, and having 20,000,000 cubic feet of contents.

Many of these ancient structures are undoubtedly of sacred origin; but the most common monuments of the Mississippi Valley are simply places of sepulture.

Sisterville, W. Va. (136 miles), has an active trade. Coal and iron-ore are found in the vicinity, and several turnpike-roads terminate here.

Marietta, O. (171 miles), a flourishing town, and the capital of Washington County, is very picturesquely situated at the confluence of the *Ohio* and *Muskingum Rivers*, and is regularly laid out on level ground. It is the oldest town in the State, having been settled in April, 1788, by a company of New-Englanders under the command of General R. Putnam. *Fort Harmar* was built on the opposite bank of the Muskingum, in 1786. Marietta is the centre of an extensive trade in oil (petroleum), which is obtained in the vicinity, and is the eastern terminus of the *Marietta & Cincinnati Railway*, which connects with the *Baltimore & Ohio Railway* at Belpré. It has good schools, and several public buildings, and is the seat of Marietta College, founded in 1835. There are also here a number of iron-founderies, bucket, chair, and other manufactures. Population in 1870, 5,219.

Parkersburg, W. Va., and Belpre, O. (183 miles), together with the grand railway-bridge uniting them, have been described in ROUTE XI. (See page 70.)

Blennerhassett's Island (185 miles) is noted for having been the residence of Herman Blennerhassett, an Irishman of distinction, who improved the island, and built on it a splendid mansion for himself, in 1793. When Aaron Burr was planning his celebrated conspiracy, he induced Blennerhassett to join him, and to embark all his means in the scheme. Although not convicted of treason, Blennerhassett was ruined, his house went to decay, and his beautiful gardens were destroyed.

Pomeroy, O. (249 miles), the capital of Meigs County, is built on a narrow strip of land, which is enclosed between the river and a range of rugged and precipitous hills. Including the adjoining villages of Coalport, Minersville,

Carltonville, and Middleport, which may be regarded as portions of the same town, it extends nearly three miles along the river. Pomeroy owes its rapid growth and prosperity chiefly to the abundance and superior quality of the stone-coal found in the vicinity. In 1851, a company, with a capital of \$25,000, was formed here for manufacturing salt. Two wells were sunk to the depth of 1,000 feet, each of which discharges 50 gallons of water a minute, containing 9.5 per cent. of salt. The quality of the salt is said to be very good. Since this experiment numerous companies have been formed, and have been so successful that Pomeroy has become one of the most extensive salt-manufacturing places in the Western States. Population in 1870, 5,825.

Point Pleasant, W. Va. (263 miles), the capital of Mason County, is on the site of the battle of "Point Pleasant," fought October 10, 1774. Eleven hundred whites were attacked by a large body of Indians under the command of "Cornstalk," a noted warrior. The engagement was the most severe ever fought with Indians on the soil of Virginia. It lasted all day, ending in the defeat of the savages and their retreat across the Ohio.

The **Great Kanawha River** empties at Point Pleasant. It is about 80 or 100 miles long, and is navigable more months in the year than the Ohio, but only to narrow boats, as the river itself is very narrow. On either side are broad farms, back of which are mountains of coal, salt, and iron. The current is very rapid, and the river will sometimes rise or fall 12 or 15 feet in a single night. **Charleston**, the capital of West Va., is on this river, 60 miles from the mouth. New River, Coal River, and Elk River, all navigable streams, are tributary to the Kanawha.

Gallipolis, O. (275 miles), is a flourishing town pleasantly situated on a high bank, and having some handsome public buildings, three steam-flouring mills, a woollen-factory, and two tanneries. It was a depot of supplies during the late civil war. Population in 1870, 3,691.

Guyandotte, W. Va. (303 miles), at the mouth of *Big Guyandotte*

River, is an important place of steamboat debarkation. A railroad is projected between this place and Covington, Ky., to connect with the Kentucky Central Railway, also a railway to the White Sulphur Springs, W. Va., to be called the Ohio & Chesapeake Railway.

Burlington, O. (311 miles), is the capital of Lawrence County. In the neighborhood are large deposits of iron-ore and numerous furnaces.

The **Big Sandy River** (314 miles) is the boundary between Kentucky and West Virginia. It flows over beds of stone-coal, and is a fine stream, open for steamboat navigation for more than 100 miles.

Catlettsburg, Ky., at the mouth of the Big Sandy River, is comparatively a young town, but is growing rapidly. Among its notable features is a flourishing female seminary founded and sustained by Captain Washington Honsbell, for the purpose of educating poor girls who have not the means to obtain a liberal education.

Ashland, Ky. (320 miles), a small village, is the terminus of the *Lexington & Big Sandy Railway*, now building.

Ironton, O. (325 miles), was laid out in 1849. It is situated above the reach of the highest floods, at the foot of high hills, rich in coal and iron. It contains large brick buildings, churches, and schools, and a number of foundries, machine-shops, and manufactories.

Hanging Rock, O. (327 miles), the depot for the product of several blast-furnaces, has a rolling-mill and other manufacturing establishments. It takes its name from a cliff of rocks about 400 feet high in the rear of the town.

Greenupsburg, Ky. (333 miles), sometimes called *Greenup Court-House*, is situated at the mouth of *Little Sandy River*, and is the capital of Greenup County.

Portsmouth, O. (353 miles), the capital of Scioto County, is beautifully situated at the mouth of the *Scioto*, and at the terminus of the *Ohio & Erie Canal*. Steamboats ply regularly between this city, Cincinnati, and other river ports, and the *Portsmouth Branch of the Marietta & Cincinnati Railway* terminates here. The town contains several large

public buildings, iron and nail factories, and forges. Iron-ore, stone-coal, and fine building-stone are found in great abundance in the vicinity. Population in 1860, 6,268; in 1870, 10,592.

Rome, O. (381 miles), has an active trade in lumber, and there are mines of iron-ore in the vicinity.

Manchester, O. (394 miles), was formerly the capital of Adams County. It is a milling and manufacturing place. The first settlement in the Virginia military district was made here in 1795.

Maysville, Ky. (405 miles), is beautifully situated on an eminence, and a range of bold and verdant highlands, rising immediately behind it, renders its appearance, as viewed from the river, very attractive. It is compactly built, and contains many handsome houses. It is the entrepot of the goods and produce imported and exported by the northeastern section of Kentucky, and is the most extensive hemp-market in the United States. Maysville has numerous manufacturing, among which are 2 steam cotton factories, a large bagging factory, 2 iron-foundries, 5 rope-walks, 12 manufacturing of ploughs, and of coaches and wagons. It was settled in 1784, and incorporated in 1833. On the opposite bank of the river is the thriving village of *Aberdeen*, Ohio.

Ripley, O. (414 miles), was formerly called Staunton, but its name was changed in compliment to the late General Ripley, chief of ordnance, U. S. Army. It is the principal town in the county, has a large trade, and is beautifully situated on a narrow strip of land between the river and steep hills.

Augusta, Ky. (424 miles), is the most important town in the county of Bracken, on account of trade and manufacturing. It has several tobacco-warehouses, large steam flouring-mills, and a tannery. This place is the seat of *Augusta College*, which was founded by the Methodists in 1825, being the first institution of the kind ever established by that denomination.

There have been numerous human bones excavated from the earth in Augusta, proving it to have been a burial-place in times long since gone by. A resident of this town alleges to have

found 110 skeletons in digging a cellar 60 by 70 feet.

Point Pleasant, O., and Belmont, Ky. (441 miles), are small villages on opposite sides of the river. The former was the birthplace of President Grant.

New Richmond, O. (446 miles), the most populous village in Clermont County, contains nine or ten churches, a Union school, several mills, etc.

The **Little Miami River** (460 miles) is not a navigable stream, but flows through a rich farming country, and furnishes a valuable water-power along its whole length.

Cincinnati, O., and Newport and Covington, Ky. (466 miles), have been described in ROUTE V. (See page 31.)

The view from the steamer when opposite Cincinnati is remarkable, and one long to be remembered. On the one hand is the densely-populated city, its rows of massive buildings rising tier above tier toward the hill-tops, which, crowned with villas and vineyards, form a semicircular background. On the opposite bank rise the beautiful Kentucky hills, their summits still crowned by the earthworks raised during the days of Cincinnati's threatened danger in the late civil war; while at their feet nestle the twin cities of *Covington* and *Newport*, Kentucky, divided only by the *Licking River*. Covington is united with Cincinnati by a suspension-bridge, and another spans the Licking, between Covington and Newport. A new railroad-bridge over the Ohio connects Newport and Cincinnati.

North Bend, O. (483 miles), a charming spot, was the residence of General William Henry Harrison, President of the United States. His tomb, a modest brick structure, upon a beautiful knoll, is visible for several miles both up and down the river. Standing beside it, the visitor can take in a fine view of parts of Indiana, Ohio, and Kentucky.

The **Great Miami River** (487 miles), an important though not a navigable stream, is the boundary of Ohio and Indiana.

Lawrenceburg, Ind. (489

miles), has been described in ROUTE IX. (See page 59.)

Aurora, Ind. (493 miles), has been described in ROUTE IX. (See page 59.)

Rising Sun, Ind. (502 miles), the capital of Ohio County, is a thriving manufacturing town, containing several handsome public buildings.

Big Bone Lick Creek, Ky. (512 miles), is in Boone County. About two miles from the mouth of this stream are the *Big Bone Lick Springs*, the waters of which are impregnated with sulphur and salt. The place derives its name from the large number of bones of the mastodon, or mammoth, and the arctic elephant, formerly found scattered all over the surface of the ground in the neighborhood.

Warsaw, Ky. (523 miles), the capital of Gallatin County, is an enterprising village, and has several large tobacco-factories.

Vevay, Ind. (533 miles), a pretty village, is the capital of Switzerland County. In 1804 it was settled by a colony of Swiss, who commenced the cultivation of the grape on a large scale; but the vine does not receive much attention at present. On the opposite bank of the river is the village of *Ghent, Ky.*

Carrollton, Ky. (511 miles), the capital of Carroll County, stands at the mouth of the *Kentucky River*, and was formerly called *Fort William*. It was first settled in 1784, and the present town was laid out in 1792. It has been the scene of several contests with the Indians.

The **Kentucky River** is a navigable stream, about 200 miles long, and is noted for its beautiful scenery.

Madison, Ind. (553 miles), the capital of Jefferson County, is one of the principal cities in the State in population and importance. It is the southeastern terminus of the *Jeffersonville, Madison & Indianapolis Railway*, which was completed in 1848. The city is beautifully situated in a valley nearly three miles in length, which is enclosed on the north by steep and rugged hills, about 400 feet high. The site is elevated 30 or 40 feet above the highest floods. Madison is well built, and contains handsome public

buildings. The streets are paved, and lighted with gas, and have quite a business aspect. Among the manufactories are several brass and iron founderies, flouring-mills, and planing-mills. The building of steamboats is an important branch of industry at Madison. Navigation is open all winter, and steamboats make daily passages between the port and Cincinnati and Louisville. Pop. 12,000.

Jeffersonville, Ind. (598 miles), is a flourishing town, situated on an elevation which presents a delightful view of the city of Louisville, of the broad and winding river with its verdant islands, and a range of hills a few miles distant. The Ohio is about a mile wide opposite this town, and is here crossed by one of the finest bridges in the United States, giving unbroken connection between the railway systems of the Southern States. Jeffersonville is the Southern terminus of the *Jeffersonville, Madison & Indianapolis Railway*. It contains many handsome churches, a large manufactory of locomotives and cars, machine-shops, mills, and the Southern State Prison of Indiana.

Louisville, Ky. (598 miles), the largest city in the State, and, commercially, one of the most important in the country, will be found fully described in APPLETONS' HAND-BOOK OF TRAVEL—SOUTHERN TOUR. It is a point of departure for the Mammoth Cave of Kentucky, a natural curiosity which every tourist should see, and which is described in the SOUTHERN TOUR.

The Falls of the Ohio, just below Louisville, obstruct navigation entirely at low stages of water. The descent is 23 feet in two miles. To obviate this, a canal was made around them, to Shippingsport, a distance of 2½ miles. It was a work of stupendous labor, being cut, a greater part of its length, through solid rock. It is, in some places, 40 feet deep, and of sufficient width to allow the passage of steamboats; it affords fine water-power for the mill-seats below the locks.

On the 24th of September, 1816, the steamboat *Washington*, under the command of Captain Shreve, made the first voyage accomplished by a steam-vessel from Louisville to New Orleans. On the 3d of March, 1817, she started on another

trip, and made the time to New Orleans and back in 41 days; the ascending voyage being made in 25 days. A public dinner was given to the captain by the citizens of Louisville, at which he predicted that the day was not far distant when the trip would be made in ten days. It has since been made in less than five days.

Portland, Ky. (603 miles), situated at the lower termination of the canal made around the rapids, has a large trade.

New Albany, Ind. (603 miles), which lies on the other side of the river, is an important place—in fact, the chief commercial town of the State. Steamboats arrive and depart daily from and to all points on the Ohio and Mississippi. The streets of New Albany are wide, straight, well paved, and well lighted with gas. The town contains 18 churches, a collegiate institute, a Presbyterian theological seminary, banks, and large public school-houses. Steamboat-building is carried on more extensively here than at any other place on the Ohio, excepting Cincinnati. The manufactories of the place are numerous and various. New Albany is the terminus of the *Louisville, New Albany & Chicago Railway*. It was laid out in 1813. The population in 1840 was 4,226; in 1860, 12,647; in 1870, 16,205.

West Point, Ky. (624 miles), at the mouth of *Salt River*, has an extensive boat-building yard.

Brandenburg, Ky. (640 miles), the capital of Meade County, is situated on a high bluff affording fine views of the river and adjacent country. It has a prosperous trade.

Leavenworth, Ind. (658 miles), the capital of Crawford County, is situated at the *Horseshoe Bend*. It is the principal shipping-point for an extensive region. The coal-fields of Indiana commence here.

Wyandotte Cave is in Crawford County, five miles from Leavenworth, near the *Blue River*, and 400 feet above the water. It has two general divisions, called *Old*, or "*Epsom Salts Cave*," and "*New Cave*." It has been explored 22 miles, and many portions still remain unvisited. As far as now known, its

greatest width is 300 feet, and its greatest height 245 feet. Some of its most noted features are "*Bandits' Hall*," "*Pluto's Ravine*," "*Monument Mountain*," "*Lucifer's Gorge*," and "*Calypso's Island*." Among its wonders is a white column 30 feet high and 15 in diameter, regularly and beautifully fluted, and surrounded by other formations of the same character. Epsom salts, nitre, gypsum, and aluminous earth, are found in the soil of the floor. Inside the cave is the picture of an Indian rudely painted on the rock.

Rome, Ind. (695 miles), the capital of Perry County, and Stephensport, Ky., at the mouth of Sinking Creek, are on opposite sides of the river. They are small villages.

Sinking Creek rises in the upper part of Breckenridge County, Ky. It is a large stream, supplying abundance of water-power for mills during the whole year; six or seven miles from its source, it sinks beneath the surface of the earth, showing no trace of its presence for five or six miles, when it reappears above-ground and flows into the Ohio. On this creek is to be seen a natural rock mill-dam, eight feet high and 40 feet wide, which answers all the purposes of a dam to a mill which has been erected at the place. Near the creek is *Penitentiary Cave*, which has never been fully explored.

Cloverport, Ky. (705 miles), does a large business in shipping produce. Coal is abundant in the vicinity. Four miles from the village are the *White Sulphur Springs*, a fashionable watering-place. (See APPLETONS' HANDBOOK OF AMERICAN TRAVEL—SOUTHERN TOUR.)

Cannelton, Ind. (717 miles), has several churches and handsome residences, and a cotton-factory, which employs several hundred hands. Population about 2,500. The factory presents a splendid appearance from the river; it is 300 feet long and four stories high, built of variegated sandstone. Extensive beds of coal are found in the adjoining hills, giving the place great advantages as a manufacturing town. Fire-clay and a fine sandstone for building-purposes are found here in abundance.

Hawesville, Ky. (717 miles), the capital of Hancock County, has a large coal-trade.

Rockport, Ind. (740 miles), the capital of Spencer County, is picturesquely situated on a high bluff. Its name is derived from a hanging rock, known as *Lady Washington's Rock*, which rises about 30 feet above the river at its ordinary level.

Owensborough, Ky. (749 miles), the capital of Daviess County, is a thriving shipping-port. The navigation of the river is seldom obstructed either by ice or low water below this place. It is in a fertile region abounding in minerals.

Green River, Ky. (725 miles) is a navigable stream, as is also its tributary, the *Big Barren*.

Evansville, Ind. (783 miles), a port of entry and a flourishing city, is the capital of Vanderburg County. It is the southern terminus of the *Evansville & Crawfordsville Railway*, and of the *Wabash & Erie Canal*, which is about 400 miles long, the most extensive in the Union. Among the public buildings are the branch of the State Bank, a fine edifice, and a marine hospital. Evansville has 30 churches, a large court-house, several banks, a theatre, and four public halls. It is the principal shipping-point for the grain and pork of southwestern Indiana, and has large and important manufactories. Population in 1860, 11,484; in 1870, 21,830.

Henderson, Ky. (795 miles), the capital of Henderson County, is a flourishing place, situated in the midst of a fine agricultural region, abounding in coal and iron.

Mount Vernon, Ind. (818 miles), the capital of Posey County, stands on a fine bluff, commanding an extensive and beautiful view of the river.

Uniontown, Ky. (832 miles), is a small village in Union County. A few miles from it, on *Highland Creek*, is a fine *tar-spring*. There are a number of curiosities in the county, worthy of observation. One is a large flat rock, with perfect resemblance of the naked feet of men and animals deeply imprinted in it. There is also a cavern, which is thought to be of great extent, but has not yet been fully explored.

The **Wabash River** (838 miles), for nearly 200 miles the boundary between Indiana and Illinois, is navigable for flat-boats 400 miles. At high water, steamboats ascend as far as Lafayette.

Shawneetown, Ill. (847 miles), derives its name from the Shawnee tribe of Indians, who once occupied this site. It is one of the most important commercial places in the southern part of the State. A new line of railroad, connecting the northern and southern systems, is now building, and will pass through Shawneetown.

Caseyville, Ky. (860 miles), is a small village. About three miles distant may be seen a natural curiosity, termed *Anvil Rock*, which is some 50 feet high, 20 feet wide, and two feet thick, and bears a striking resemblance to a blacksmith's anvil. It stands upon level bottom-land, and is entirely isolated.

Two miles below the village, on the opposite bank of the river, is *Battery Rock*, a high and picturesque bluff.

Cave in Rock, Ill. (869 miles), is one of the most noted places on the river. About the year 1801, a band of river pirates, under the command of an outlaw named Mason, made this their headquarters, whence they sallied forth to rob and murder passing boatmen. The Governor of Mississippi put a price of \$500 on Mason's head. One of the band, named Harpe, turned traitor, shot Mason, cut off his head, and carried it to the capital, where he was paid the reward.

Elizabethtown, Ill. (877 miles), the capital of Hardin County, is in the neighborhood of rich lead-mines.

Goleconda, Ill. (890 miles), the capital of Pope County, is situated at the mouth of *Lusk Creek*.

Smithland, Ky. (908 miles), used to have some importance as a shipping-port, but this is declining, on account of the channel changing to the other side of the river. It is at the mouth of the *Cumberland River*.

Paducah, Ky. (920 miles), the capital of McCracken County, derives its name from an Indian chief who once resided in this vicinity. It has a large export shipping-trade in tobacco, pork, mules, horses, etc. A fine range of ware-

houses fronts the river. During the civil war, Paducah was a place of considerable importance, from its position at the mouth of the *Tennessee River*.

Metropolis City, Ill. (929 miles), is the capital of Massac County. At the time of "Aaron Burr's conspiracy," the troops sent by the Government to frustrate his plans built a fort two mile above, where the village now stands, and named it Fort Massac. There is nothing now left to mark the spot.

Caledonia, Ill. (951 miles), the capital of Pulaski County, is a small village.

Mound City, Ill. (959 miles), is the site of the United States River Navy-Yard. It is six miles above Cairo, and eight miles above the mouth of the river.

Cairo, Ill. (967 miles), the capital of Alexander County, is situated upon the point of land formed by the confluence of the Ohio and Mississippi Rivers, and is the southernmost point of the State. Though always recognized as an important position, and one destined to become the site of a large city, the disadvantages which stood as barriers in the way of private enterprise, and the exceptionally unhealthy character of the locality, frustrated all attempts at building up a town upon a spot subject to inundation at any flood of either of the two great rivers. The prosperity the place dates from the completion of the Illinois Central Railway. The company built a levee, which acts as a barrier against the water, and made other important improvements. On the 7th of August, 1855, the first train of cars reached the city. In 1850, the population was 242; it is now between 12,000 and 15,000. Every steamer plying between places on the Ohio and Mississippi Rivers, or between ports upon the Upper and Lower Mississippi, stops at Cairo to receive and discharge freight and passengers. The buildings erected by the General Government, and the county buildings, are large and handsome, especially the *Custom-house*, which is of cut stone, and cost about \$200,000. During the civil war, Cairo was an important depot of supplies. A steam-packet, plying between Columbus, Ky., and Cairo, forms the connecting link in the chain of railway communi-

cation by the *Mobile & Ohio* and *Illinois Central Railways* between New Orleans and Chicago.

Commerce, Mo. (995 miles), owes its importance as a shipping-port to the country behind it, which is noted for breeding remarkably fine cattle. The Mississippi bottom at this point is broad and fertile, but, being subject to inundations, the towns are generally built far back upon the highlands or bluffs, the steamer landings being mere hamlets, serving as ports for the settlements in their rear.

Thebes, Ill. (1,001 miles), was formerly the capital of Alexander County, but since that has been removed to Cairo, the village is only a shipping-point.

Cape Girardeau, Mo. (1,010 miles), is the seat of St. Vincent's College. It is situated in a rich county, extensively cultivated. The county, bearing the same name, was settled in 1794, by the French and Germans.

Willard's Landing, Ill. (1,025 miles), is noted for its large annual shipments of grain. This port, which is situated at the southern extremity of the Great American Bottom, which extends north to beyond St. Louis, is also the shipping-point for Jonesboro (described in ROUTE I. of ILLINOIS).

Devil's Tea-Table and Cornice Rocks (1,026 miles) are the names given to some portions of the bluffs where the water has worn the rocks into regular shapes, representing continuous rows of cornice-work, and other curious architectural devices.

Grand Tower, Ill. (1,039 miles), is a large, massive rock, rising nearly 50 feet from the river. It is circular in form, and the river, which is very rapid, rushes around its base with tremendous force. At this point there are gigantic ranges of rocks rising to a great height on both sides of the river; the "Tower" being a portion which has been detached by the action of the current. Before the introduction of steamers, this place was dreaded by boatmen more than any other on the river, as the only way in which they could ascend with their boats was to tow them with ropes from the Illinois shore. While thus engaged, the crews were often attacked

by the Indians, who would lie in wait for them, murder them, and capture the boats, and the often-valuable cargoes. Opposite the "Tower," on the Illinois shore, is a village of the same name, which is the western terminus of the Mount Carbon Branch of the *Illinois Central Railway*, connecting with the main line at Carbondale.

Chester, Ill. (1,073 miles), the capital of Randolph County, is a thriving village, situated about one mile below the mouth of the *Kuskaskia River*, a large navigable stream.

Kaskaskia, Ill. (1,088 miles), is handsomely situated on the west bank of the river of the same name, seven miles from its mouth, and some two miles east of the Mississippi River. It is the oldest town in Illinois, and perhaps in the West, it having been settled by the French in 1673. It was the capital of the Territory from the time of the organization of the latter, to 1818.

St. Genevieve, Mo. (1,089 miles), capital of the county of the same name, exports large quantities of copper, lead, limestone, and white sand, the latter being used in the manufacture of glass at Pittsburg. It is an old town, having been settled by the French in 1755.

Mercurianum, Mo. (1,116 miles), was formerly the capital of Jefferson County, and a great market for the lead procured from the mines in the vicinity. In 1844 it was almost entirely destroyed by a flood.

St. Louis, Mo. (1,149 miles). (See page 46.)

TOUR III.

ST. LOUIS TO THE "GATES OF THE ROCKY MOUNTAINS."

Via Missouri River.

LANDINGS.	MILES.	
St. Louis, Mo.....	20	20
Mouth Missouri River.....	25	45
St. Charles, Mo.....	39	84
Washington, Mo.....	36	120
Hermann, Mo.....	6	126
Gasconade River, Mo. }	39	165
Formosa, Mo. }	9	174
Osage River }	30	204
Jefferson City, Mo.....	13	217
Providence, Mo.....	12	229
Rocheport, Mo. }		
Old Franklin, Mo. }		
Booneville, Mo. }		

LANDINGS.	MILES.	
La Mine River, Mo.....	6	235
Arrow Rock, Mo.....	16	241
Glasgow, Mo.....	3	260
Chariton River, Mo.....	7	267
Old Jefferson, Mo.....	25	292
Brunswick, Mo.....	2	294
Grand River, Mo.....	52	346
Waverley, Mo.....	26	372
Lexington, Mo.....	36	403
Sibley, Mo.....	29	437
Liberty Landing, Mo.....	6	443
Wayne City, Mo.....	7	450
Randolph, Mo.....		
Kansas, Mo. }	7	457
Kansas River }		
Wyandotte, Kan. }	15	472
Parkville, Mo.....	2	474
Little Platte River, Io.....	22	496
Leavenworth, Kan.....	8	504
Weston, Mo.....	10	514
Kickapoo City, Kan.....	17	531
Atchison, Kan.....	35	566
St. Joseph, Mo.....	19	591
Nodaway City, Mo.....	15	606
Iowa Point, Mo.....	10	616
White Cloud, Kan.....	53	669
Brownville, Neb.....	30	719
Nebraska City, Neb.....	35	754
Rock Bluff, Neb.....	5	759
Bethlehem, Iowa.....	1	760
Plattsmouth, Neb.....		
Platto River, Neb. }	3	763
California City, Iowa }	15	778
Bellevue, Neb.....		
Council Bluffs, Iowa }	15	793
Omaha, Neb.....	10	803
Florence, Neb.....	10	813
Fort Calhoun, Neb.....	15	828
De Soto, Neb.....	80	853
Tekama, Neb.....	60	918
Sioux City, Iowa.....	79	997
Fort Vermilion, D. T.....	56	1,053
Fort Randall, D. T.....	100	1,153
Fort Lookout, D. T.....	150	1,303
Fort Pierre.....	570	1,873
Yellowstone River.....	235	2,108
Fort Union.....	400	2,508
Fort Benton.....	40	2,548
Great Falls.....	110	2,653
Gates of the Rocky Mountains.....	441	3,099
Source of the Missouri.....		

THE MISSOURI RIVER.

The restless, turbid waters of the Missouri River flow fretfully, 3,099 miles from their sources in the remote West, to their union with the Mississippi. The entire length of the river, including its course to the Gulf of Mexico by the Mississippi (1,272 miles more), is 4,371 miles. The head-waters of the Missouri are very near the springs which find their way to the Pacific through the channels of the Columbia River. Their course is northward for 600 miles, until they reach the remarkable cataracts known as the *Great Falls*. Before their arrival there, how-

ever, and at a distance of 411 miles from their source, the waters make the passage of the bold chasms called the "Gates of the Rocky Mountains." "Here, through a length of six miles, the giant rocks rise perpendicularly to an elevation of 1,200 feet. The dark waters, in their narrow bed, wash the base of these huge walls so closely, that not a foothold is anywhere to be found. It is a ghostly gorge on the sunniest day, but, when its habitual gloom is deepened by the shadow of a stormy sky, its solitude grows painfully impressive. Let a thunder-peal reverberate, as often happens, in a thousand wailing voices through the rocky windings of this glen, and let the blackness of darkness be increased by the vanished gleams of the lightning-flash, and you think you have left this fair world far behind you."

The *Great Falls of the Missouri* are situated 2,548 miles from its mouth, and 40 miles above Fort Benton. The descent of the swift river, at this point, is 357 feet in 13½ miles. The falls embrace four cascades, the first of which is 26 feet, the next 27 feet, a third of 19 feet, and a fourth, and lowest, of 87 feet. Between and below these cataracts there are stretches of angry rapids. This passage is one of extreme beauty and grandeur, and at some day, not very distant, perhaps, when these Western wilds shall be covered with cities, and towns, and peaceful hamlets, this spot will be one of no less eager pilgrimage than many far less imposing scenes are now. The falls of the Missouri are esteemed, by the few tourists whose good fortune it has been to look upon these wonders, as holding rank scarcely below the cataracts of Niagara. The best, and, indeed, the only travelled approach is by boat from St. Louis, or Omaha, during the "spring rise" in the Missouri, to Fort Benton, 2,508 miles, and thence 25 miles by land. Fort Union, 400 miles below Fort Benton, is the head of steamboat navigation during the summer months.

The upper waters of the Missouri flow through a wild, sterile country, and below pass vast prairie stretches. Above the River Platte the open and prairie character of the country begins to develop, extending quite to the banks of the river,

and stretching from it indefinitely in naked grass plains, where the traveller may wander for days without seeing either wood or water. Beyond Council Bluffs, commences a country of great interest and grandeur, denominated the *Upper Missouri*. It is composed of vast and almost boundless grass plains, through which run the Platte, the Yellowstone, and the other rivers of this ocean of grass. Buffalo, elk, antelope, and mountain-sheep, abound. Lewis and Clark, and other travellers, relate having seen here large and singular petrifications, both animal and vegetable. On the top of a hill they found a petrified skeleton of a huge fish, forty-five feet in length.

The peculiar nature of the soil through which the Missouri runs, and the fearful power of its swift current, render property upon its banks very uncertain and undesirable; acres of land are carried away at a time, and houses, barns, trees, fences and crops, disappear in the seething flood; whole towns have been washed away, and the inhabitants forced to seek other and safer homes.

Navigation is very dangerous on account of the swift current, the countless islands and sand-bars, and the murderous "snags" and "sawyers." A "snag" is a tree which, when washed away from the bank, floats into the stream, and then partially sinks; the roots become fastened in the bottom, and then the sharp stems, rising nearly to and above the surface of the water, are the fatal snags that almost instantly sink any steamer striking them. They always lie with their sharp ends pointing down the stream, and consequently are dangerous principally to ascending steamers. When a steamer is descending the stream, it slides over them, instead of being impaled. They are then known as "sawyers," if they project above the water—the current giving them a waving motion. At a low stage of water, navigation is almost impossible, and it is said that an old toper, travelling on a steamer, when asked why he drank nothing but whiskey, said that he felt compelled to, as every drop of water in the river was required to float the boat! The river begins to rise in March, and continues till July, when the summer floods of its remote

tributaries come in. During this period there is sufficient depth of water for steamers of almost any class; but, during the remainder of the year, it is hardly navigable for any distance, for the smallest vessels that float upon the Western waters.

The "bottoms" of the Missouri differ materially from those of the Upper Mississippi, being wider, and not as wet, and having smaller, though taller and straighter trees. The bluffs, like those of the other river, are of limestone, but are not so steep, and seem more inclined to the rounded, semicircular form.

The steamers upon this river are similar to those described in the trip down the Mississippi (see LAKE AND RIVER TOUR, No. I.), and the manner of loading and managing them is the same. "Wooding-up" has not been described, and, as it is a feature of river-life, a brief sketch of the scene may not be out of place:

The negroes of the Missouri are happy specimens of God's image done up in ebony, and in many lighter colors, and they have frequently a deserved reputation as "deck-hands." It is surprising how much hard work they will perform, and yet retain their vivacity and spirits. They take a lively personal interest in the success of the boat on which they are employed, and become as much a part of the propelling machinery as the engines. Their custom of singing at all important landings, already spoken of, has a pleasing and novel effect, and, if stimulated by an appreciative audience, they will roll forth a volume of vocal sounds that, for harmony and pathos, far surpasses the best performances of the so-called "negro-minstrels."

At night, when the "old ark" is tied up, they love a game of "old sledge," with the accompaniment of a fiddle. On such occasions, the violinist will touch off the "Arkansas Traveller," and then, gradually sliding into a "Virginia breakdown," he will be accompanied by a genuine darkey, keeping time on the light fantastic heel-and-toe tap. It is an exciting struggle between eat-gut and human muscle. It affects not only the performers, but the contagion spreads to the spectators, who display their delight by words of rough encouragement and

laughter, which echo along the otherwise silent shore.

"Wooding up," however, is the great glory of the darkey deck-hand. On a first-class steamer there may be sixty "hands" engaged in this physical contest. The passengers extend themselves along the guards as spectators, and present a brilliant array. The scene is lighted up by a "torch," not such a one as is seen in our cities, but a huge iron bucket, or rather cage, at the end of an iron rod, projecting from the side of the steamer, and filled with blazing wood and resin, and throwing a ruddy glare over river, steamer, and shore. The performance consists in piling on the boat a large quantity of wood, in the shortest possible space of time. The steam-boilers seem to sympathize at the sight of the fuel, and occasionally breathe forth immense sighs of admiration—the pilot increasing the noise by performing a solo on the alarm-whistle. The mate of the boat, for want of something better to do, divides his time between such exclamations as "Oh, bring them *shavings* along!" "Don't go to sleep at *this* frolic," and swearing such terrible oaths, that even good men are puzzled to decide whether he is really profane, or simply ridiculous. Upon the shoulders of each are piled innumerable sticks of wood, which are thus carried from the land into the capacious bowels of the steamer. The "last loads" are shouldered—the final effort to carry "the largest pile" is made. On the Mississippi, where navigation is easier, this scene is often varied by wooding up while in motion. In this case, the wood having been loaded on a flat-boat, the moment the steamer reaches the wood-yard, the wood-boat is made fast to her, and the trip is resumed, the transfer going on at the same time. When the next wood-yard is reached, the empty boat is left to be filled, and taken back on the return-trip. In this way much valuable time is saved.

Since the completion of the railways to the leading places along the river, the hey-day of the steamers is over. The conquering railway robs them of nearly all passengers and much freight. Gone forever the era of universal racing, with its attendant excitements—its pet steamers, high wagers, and fierce rivalry.

From St. Louis to the mouth of the Missouri, and the "meeting of the waters" at that point, the river has already been described in the trip down the Upper Mississippi. We will commence our notes upon the trip up the Missouri at

St. Charles, Mo. (45 miles), the capital of St. Charles County. It is a handsome and flourishing place, beautifully situated on an elevation. The rocky bluffs in the vicinity afford fine views of the adjacent rivers. Quarries of limestone and sandstone, and mines of stone-coal, have been opened near the city. St. Charles contains a college, a court-house, and several churches. Population, about 5,000.

Washington, Mo. (84 miles), **Hermann, Mo.** (120 miles), **Gascoyne, Mo.** (126 miles), and **Jefferson City, Mo.** (174 miles), are all stations on the line of the Pacific Railway of Missouri, and have been described in ROUTE XVII. (See page 87.)

Formosa, Mo. (165 miles), is a small village at the mouth of the *Osage River*, a stream some 500 miles long, for 200 of which it is navigable.

The country on both sides of the Missouri is very beautiful between its mouth and Jefferson City, especially that on the left bank, which is finely cultivated.

Providence, Mo. (204 miles), is the landing place for *Columbia*.

Columbia, Mo., the capital of Boone County, will be found described under the heading of ROUTE I. of MISSOURI.

Rocheport, Mo. (217 miles), at the mouth of *Moniteau Creek*, is on the line of a railway now building from Columbia to Kansas City, to be called the *Boone County Railway*.

Booneville, Mo. (227 miles), a flourishing town, capital of Cooper County, owes its prosperity and importance to its advantages as a commercial point. It is remarkably healthful, both town and country having escaped the ravages of the cholera during the epidemic of 1849-'50. It is situated on a bluff 100 feet above high-water mark, and is surrounded by a rich farming region. The grape is extensively cultivated here. Iron, lead, stone-coal, marble, and hydraulic limestone, are abundant in the vicinity. The place was settled by Daniel Boone, the celebrated pioneer of Kentucky.

La Mine River, Mo. (235 miles), a stream of remarkably clear water, is navigable for 30 miles.

Arrow Rock, Mo. (241 miles), occupies a fine position 150 feet above the river. The Indians formerly used the stone found here for arrow-heads; hence the name of the place.

Glasgow, Mo. (257 miles), has a large trade, being the principal shipping-port for Howard County. It contains several churches and a female seminary. Population, about 1,500.

Chariton River, Mo. (260 miles), is 150 miles long, but is only navigable for 30 miles.

Old Jefferson, Mo. (267 miles), is a small village. A place of the same name formerly stood opposite Glasgow, but was swallowed up by the river.

Brunswick, Mo. (292 miles), an enterprising town of about 3,500 inhabitants, stands on a beautiful, level prairie. The principal buildings are of brick. The *North Missouri Railway* connects here.

Grand River, Mo. (294 miles), is a stream 240 miles in length, for 100 of which it is navigable. It is the boundary between Carroll and Chariton Counties.

Waverly, Mo. (346 miles), is an active village, laid out in 1843. It has a population of about 2,000.

Lexington, Mo. (372 miles), the capital of Lafayette County, delightfully situated 300 feet above high-water mark, is one of the oldest and was formerly one of the most prosperous places in the State. It is connected with the *Missouri Pacific Railway* by a branch of that road which forms a portion of a railway now building, to cross the State from St. Joseph to the southeast. The probable effect of the completion of this road will be to give the place a fresh impetus.

Sibley, Mo. (408 miles), is a village containing the former site of Fort Osage.

Liberty Landing, Mo. (437 miles), is a landing-place for Liberty, a station on the *North Missouri Railway*, four miles distant.

Wayne City, Mo. (443 miles), is the landing-place for Independence, with which it is connected by a railroad four miles long.

Randolph, Mo. (450 miles), is a

pretty village handsomely situated upon a commanding eminence.

Kansas City, Mo., and Wyandotte, Kas. (457 miles), are described in ROUTE XVII. (See page 89.)

Kansas River (457 miles) is one of the largest affluents of the Missouri. It is about 1,200 miles long, and in time of high water is navigable for some 900 miles. In low stages of water it is full of sand-bars and shoals.

Packville, Mo. (472 miles) is a shipping-point of some importance. Population about 1,000.

Little Platte River, Io. (474 miles), is about 200 miles long, but is exceedingly shallow and difficult to navigate.

Leavenworth, Kas. (496 miles), the largest and most flourishing city in the State, is beautifully situated on the west bank of the river. It occupies a highly-advantageous geographical position, and is surrounded by one of the richest agricultural regions in the valley of the Missouri. The river flows here with a swift, deep current, and is bordered on the Kansas side by a natural levee of rock, affording excellent landings. The city is laid out in rectangular blocks, with streets extending north and south, and east and west. The principal streets are macadamized and lighted with gas. In 1853 there was not a roof, a shanty, nor a single human being, in Leavenworth. Thick hazel-brush covered its site, and the wolves roamed unmolested. Now it has 20,665 inhabitants, 27 elegant schools and academies, nearly 30 churches, 200 saloons, two theatres, seven public halls, and two jails; hotels, founderies, saw-mills, machine-shops, and factories, are everywhere to be seen, and stores, rivalling some of the best in the East, are daily crowded with eager purchasers. The educational facilities are admirable, and the local press is enterprising, being represented by gentlemen of unusual intelligence and ability. Leavenworth is the headquarters for outfitting Government supply-trains for Western forts, and also of an immense trade with the Territories. It is well worth while for the tourist to walk to the fort and government farm. The latter is one of the largest and most productive in the country.

The importance of Leavenworth as a

commercial centre is due in a great measure to its direct railway connections with all parts of the country. Extensive arrangements are now being made for the construction of new roads.

The *Kansas City, St. Joseph & Council Bluffs Railway* connects here. An iron railway-bridge has been built across the Missouri at this point.

Fort Leavenworth, situated on a bluff 150 feet high, two miles from Leavenworth City, was established in 1827, and until the building of the Pacific Railway was the grand depot of supplies for all the Western posts. The Government reservation, which extends for six miles along the river and one back, affords good landings for steamboats. The Government buildings, consisting of barracks for the troops, a hospital, store-houses, officers' quarters, stables, barns, etc., etc., are large and well built. The parade-ground is remarkably handsome. Connected with the fort is stabling for 8,000 horses and 15,000 mules.

Weston, Mo. (504 miles), a very flourishing place, containing several churches, printing offices, etc., is a station on the *Kansas City, St. Joseph & Council Bluffs Railway*.

Kickapoo City, Kas. (514 miles), receives its name from the Kickapoo Indians, who formerly dwelt in this part of Kansas. It is the place where the convention met which made the arrangements for the election of a delegate to Washington to urge upon Congress the organization of the Territories of Kansas and Nebraska, September 20, 1853.

Atchison, Kas. (531 miles), is picturesquely situated on the west bank of the Missouri. It was first settled by the famous Buford Company of South Carolinians, who, under Stringfellow, made it their headquarters. Subsequently Pomeroy, the agent of the New-England Emigrant Aid Company, obtained possession of the place by strategy, buying up its newspaper, and throwing a force of free-State men into the town during the night. The troubles were finally settled by Pomeroy and Stringfellow uniting their resources, and buying up the place on speculation, and, as it has developed wonderfully since then, they have both grown immensely rich. The

former is now United States Senator from Kansas, and when not in Washington resides in Atchison, and the latter also lives here in affluence.

Atchison is situated at the extreme point of the "*Great Western Bend*" of the Missouri River, and is therefore the most interior city in Kansas on the river.

There are numerous churches in the place. The educational facilities are good, and the school-houses substantial and elegant. The new central school-building is the largest and handsomest in the State. Atchison has many advantages, naturally and locally, as a great manufacturing centre. It has flouring-mills, planing-mills, a large furniture-manufactory, three banks, and several good hotels. It is the great railway centre of the State, or will be when the other roads now building are completed. It is the terminus of the *Central Branch of the Union Pacific*, and also the terminus of the *Missouri Pacific Railway*. It is connected with the *Hannibal & St. Joseph Railway* by the *Kansas City, St. Joseph & Council Bluffs Railway*, and is to be the terminus of the *Atchison & Nebraska Railway*, now building.

St. Joseph, Mo. (566 miles), has been described in ROUTE XVI. (See page 86.)

Nodaway City, Mo. (591 miles), is a small village, and the landing-place for *Savannah*.

Brownville, Neb. (669 miles), the capital of Nemaha County, was incorporated as a city in 1864. It stands on an elevation of from 30 to 40 feet above the water, and is enclosed on all sides, except the east, by bluffs.

Nebraska City, Neb. (719 miles), the capital of Otoe County, has an extensive trade. There are valuable salt-springs in the vicinity.

Rock Bluff, Neb. (754 miles), is situated in a valley about one mile from the river. On two sides it is bounded by steep hills.

Plattsmouth, Neb. (760 miles), the capital of Cass County, is beautifully situated on a high bank, in the neighborhood of fine timber and coal.

Platte River, Neb. (763 miles), is over 2,000 miles long, and in its course waters the great valley of that name,

through which the Union Pacific Railway extends, and of which a description is given in ROUTE XVIII. (See page 87.) At its junction with the Missouri, it presents the appearance of a large navigable stream, but its shallows and sand-bars prevent any boat navigating its waters.

Bellevue, Neb. (778 miles), is a place which is intimately connected with the early history of the West. Lewis and Clark landed here in 1804, and soon afterward the American Fur Company established a trading-post at this point. Passing up the river, the tourist will observe the old building still standing on the river-bank where once congregated thousands of warlike red-skins, and on the bluff above are the graves of many of their chiefs, whose spirits their descendants believe still watch over this their favorite resort.

Council Bluffs, Io. (793 miles), has been described in ROUTE XII. (See page 74.)

Omaha, Neb. (793 miles), has been described in ROUTE XVIII. (See page 95.)

Florence, Neb. (803 miles), a small village, was first settled in 1847.

Sioux City, Io. (918 miles), the capital of Woodbury County, is the largest town above Omaha, and bids fair to become a great city. It is the terminus of the *Sioux City & Pacific Railway*, and of the *Iowa Division of the Illinois Central Railway*. The *St. Paul & Sioux City Railway* will also terminate here, and a road to Yankton is now building.

Yankton, D. T., the capital of the Territory, will soon be connected with civilization by a railway.

After passing Yankton, the traveller finds a great tract of country on either side of the river, possessing the same features of wide bottom-land on the one side and bluffs on the other. Occasionally a few Indians are seen, who were once a terror to voyageurs in Mackinaw boats, which descended the stream every spring laden with robes and furs. Herds of buffalo, elk, and deer, are frequently seen. The sameness of every day's voyaging is relieved by calls at the Government posts of Fort Rice, Pierre Berthold, and other forts, until we reach

Fort Benton (2,503 miles), the head of navigation.

STATES AND TERRITORIES.—LOCAL ROUTES.

OHIO.

OHIO, the third State in the Union in population and wealth, is bounded on the north by Lake Erie and a part of Michigan; on the east by Pennsylvania; on the southeast by West Virginia; on the south by Kentucky; and on the west by Indiana. The greatest length from north to south is 200 miles, and the greatest width from east to west is 195 miles, the area being 39,964 square miles. There are no mountains in Ohio, but the land, toward the centre of the State, is 1,000 feet above the sea. The first permanent white settlement in the State was made at Marietta, on the 7th of April, 1788, and, in 1802, Ohio was organized as a Territory. For many years the Indians were very troublesome, but were finally conquered in 1794, by General Anthony Wayne.

The dividing line between the waters flowing toward Lake Erie, and those running into the Ohio, is a ridge, extending from east to west, and lying nearer to the lake than to the river, thus giving greater length and volume to the streams running southward than to those to the north. The State was originally well timbered, but many of the forests have been felled, to make way for bustling towns and fields of grain. The bituminous coal-fields of Pennsylvania and Kentucky extend into Ohio, covering an area of 11,900 square miles, and embracing 20 counties. The coal-region commences at the *Ohio River*, and extends nearly to Lake Erie, occupying the belt of land between the *Scioto* and *Mus-*

kingum Rivers. Iron is abundant and of a superior quality, and with each year is developed more and more, adding continually to the wealth of the State, and to its importance as the seat of large manufactories. Salt-springs are numerous, and marble, lime, and building-stone abound.

At different points around Lake Erie, persons, in sinking wells, have met with inflammable gas, and this has happened at several places in Ohio. Captain John Spaulding, of Rockport, knowing this fact, concluded that, by sinking a tube to a sufficient depth, gas could be found anywhere along the northern margin of the State, and that, as at Erie, Pa., cities might be lighted, and heat supplied for all manufacturing purposes. He tried the experiment at Cleveland, and commenced work there on the 30th of January, 1871. On the 6th of March, while the men were drilling, they heard a roaring noise and, a moment after, a stream of water rose some 4 feet high above the tubing: this was followed by gas, which, when lighted, produced a constant white flame, about 8 feet in height. The well, at that time, was 560 feet deep, but it will be sunk 100 feet deeper, with a view to procuring a constant and unlimited supply of gas, for illuminating and heating purposes. It is known that a bituminous shale, 350 feet thick, underlies the soil from Huron, Ohio, to Buffalo, New York, and, it is believed that, wherever it exists, gas can be found.

The climate is varied, the temperature

being quite warm in the southern portion of the State, while in the north it is similar to that in the same latitude on the Atlantic coast.

The soil is generally rich and highly cultivated, and the products varied and abundant. Wool is one of the staples of Ohio, and the quantity annually exported is very large. Wine, too, is an important article of export and home use, the vineyards near Cincinnati, and those of *Put-in-Bay Islands*, being noted for the fine flavor and good quality of the wine produced from the grapes. The forest-trees of Ohio are of many kinds. Evergreens do not flourish in the State, but hickory, oak, maple, buckeye, and other trees, come to great perfection.

The State is divided into 88 counties. *The population* in 1800 was 45,365, and by the late census, 2,662,681. Columbus, the State capital (*see* page 26), has a population of 31,336; Cincinnati, the largest city, the eighth in population in the Union, has 218,900 inhabitants; Cleveland has over 93,000 inhabitants, and Toledo, Dayton, Zanesville, Hamilton, and Sandusky, are large and populous cities. The total valuation of real and personal property in the State is given by the census of 1870 as \$1,512,438,886, against \$959,867,101 in 1860.

Though very beautiful, the scenery of Ohio is lacking in grandeur, the nearest approach to it being the bold bluffs of the Ohio River; but there is much that is picturesque and of interest to the tourist: such as the Indian mound near Marietta, the ruins of Fort Ancient, Clark's Works in Ross County; the subterranean lake at Bryan, in Williams County; the falls of many of the rivers; the mineral springs at Delaware; the pyramidal rock at Lancaster; the old fortifications at Circleville; the large spring at Castalia; and the Yellow Sulphur Springs (*see* page 41), with the charming falls of the Miami near by.

The railways and canals by which Ohio is traversed in every direction are so numerous that every town of any size in the State has a ready means of communication with the rest of the world, while the products of the soil, the mines, and the manufactories, easily find their way to market.

Ohio is rapidly becoming a great manufacturing State. In the year ending November 30, 1870, there were 107 manufacturing companies incorporated. The following are the statistics of the iron business during that year: Pig-iron manufactured, 211,074 tons. Of this, 74,221 tons were smelted with charcoal, and 136,853 tons with stone-coal. Bar and nail iron, 27,585 tons; nails, 8,271 tons; hoop-iron, 498 tons; sheet-iron, 648 tons; stoves, 8,631 tons; car-wheels, 3,507 tons; other castings, 10,711 tons; spikes and railroad-chairs, 706 tons; railroad-iron, 9,167 tons.

RIVERS, ETC.

Ohio is well watered, but has few navigable rivers.

The Ohio River, forming most of its eastern and all of its southern boundary, has been fully described, with all its landings of any importance.

Muskingum River is formed by the *Tuscarawas* and *Walhandung Rivers*, which take their rise in the upper part of the State and meet at Coshocton. It is navigable by means of dams and locks as far as Zanesville (70 miles), and in high stages of the water as far as Coshocton (100 miles).

Scioto River rises in Hardin County, and, after running 200 miles, empties into the Ohio at Portsmouth. It receives the waters of the *Olentangy*, at Columbus, and has, besides, many other tributaries.

Hocking River, which rises in Fairfield County, is 80 miles long, emptying into the Ohio at Troy. It is navigable for small boats as far as Athens. The falls of the Hocking are seven miles above Lancaster, the river leaping a ledge of rock 40 feet high. Above the falls the shape of the river resembles a bottle, hence its Indian name, "Hock-hocking."

Little Miami River, of great value as a mill-stream, is noted for its beauty. About 70 miles from its mouth at *Clifton*, near *Yellow Springs*, in a short distance it falls 200 feet, cutting for itself a deep and narrow path through the solid limestone. These falls, together with the springs, form the most attractive resort in the State, excepting perhaps

Put-in-Bay Islands. There are several good hotels at the springs, the principal being the *Neff House*, and there is a park of 300 acres of beautiful woodland, through which a clear stream tumbles in a series of romantic cascades. The "Cascade," "Cliffs," "Glen," "Lover's Leap," and "Pompey's Pillar," are among the most noted spots at the Springs. The "Iron Spring" discharges 102 gallons a minute, and there are five other chalybeate springs. The sulphur well is 70 feet deep.

Great Miami River rises in Hardin County, near the source of the Scioto. Although not navigable, it is a stream of great importance, running through a rich country, and furnishing an immense water-power. For some distance it is the boundary between Ohio and Indiana.

Maumee River, formed by the junction of the *St. Joseph's* and *St. Mary's Rivers* at Fort Wayne, Indiana, crosses the northwestern corner of Ohio, at Toledo, 80 miles from its head. It is navigable to Defiance, Ohio (60 miles), by small boats, and in times of high water by those of larger size. For 18 miles it is navigable for lake-steamers.

The other rivers of Ohio, emptying into Lake Erie, are only navigable at their mouths.

ROUTE I.

CINCINNATI TO TOLEDO.

Via Cincinnati, Hamilton & Dayton, Dayton & Michigan, and Cincinnati, Richmond & Chicago Railways.

STATIONS.—Cincinnati—Cumminsville, 5 miles; Marietta & Cincinnati Junction (connects with Marietta and Cincinnati Railway), 7; Carthage, 10; Lockland, 12; Glendale, 15; Jones's, 19; Hamilton (connects with Cincinnati, Richmond & Chicago, and Cincinnati & Indianapolis Junction Railways), 25; Busenbark's, 31; Trenton, 33; Middletown, 37; Poast Town, 40; Carlisle, 44; Miamisburg, 49; Carrollton, 52; Dayton (connects with Cincinnati, Sandusky & Cleveland, Atlantic & Great Western Division of Erie, Dayton & Union, Dayton & Western, and Little Miami Railways), 60; Tippecanoe,

74; Troy, 80; Piqua (connects with Pittsburg, Cincinnati & St. Louis Railway), 88; Sidney (connects with Cleveland, Columbus, Cincinnati & Indianapolis Railway), 100; Anna, 106; Wapakoneta, 119; Lima (connects with Pittsburg, Fort Wayne & Chicago Railway), 131; Columbus Grove, 144; Ottawa, 151; Leipsic, 158; Belmore, 162; Milton, 172; Weston, 176; Tontogeny, 182; Perrysburg, 193; Toledo (connects with Lake Shore & Michigan Southern and Toledo, Wabash & Western Railways), 202.

This is an important road running through a rich and beautiful country. Most of the stations along the line have already been described.

From Cincinnati to Dayton, for description *see* pages 30 and 31.

Hamilton (25 miles). (*See* page 31.)

Dayton (60 miles). (*See* page 30.)

Tippecanoe (74 miles) stands on the west bank of the *Great Miami River* and upon the *Miami & Erie Canal*. It contains several churches and manufactures, and is growing rapidly.

Troy (80 miles), the capital of Miami County, is a pretty, well-built village, on the west side of the *Great Miami River* and upon the *Miami Canal*. The river, which at this point is a beautiful and rapid stream, furnishes a fine water-power for several factories.

Piqua (88 miles). (*See* page 28.)

Sidney (100 miles). (*See* page 58.)

Wapakoneta (119 miles), the capital of Auglaize county, was for many years the seat of a mission among the Shawnee Indians, established by the Society of Friends.

Lima (131 miles). (*See* page 24.)

Toledo (202 miles). (*See* page 19.)

The other stations are unimportant villages.

ROUTE II.

CINCINNATI TO SANDUSKY.

Via Cincinnati, Hamilton & Dayton, and Cincinnati, Sandusky & Cleveland Railways.

STATIONS.—Cincinnati—Dayton (connects with all diverging roads), 60 miles; Osborn, 71; Springfield (connects with

Little Miami Railway and London Branch), 85; Fremont, 91; Urbana (connects with Columbus, Chicago & Indiana Central Railway), 99; West Liberty, 109; Bellefontaine (connects with Cleveland, Columbus, Cincinnati & Indianapolis Railway), 117; Huntsville, 124; Yelverton, 132; Kenton, 141; Forest (connects with Pittsburg, Fort Wayne & Chicago Railway), 153; Carey (Junction of Findlay Branch), 165; Adrian, 170; Tiffin, 181; Green Springs, 193; Clyde (connects with Lake Shore & Michigan Southern Railway), 198; Castalia, 209; Sandusky (connects with Sandusky, Mansfield & Newark Railway), 215.

This route passes through a rich and thickly-populated region, and connects with every railway crossing the State from east to west, and consequently all the principal stations have already been described. For the first 60 miles the route is identical with ROUTE I. of OHIO.

Springfield (85 miles). (See page 30.)

Urbana (99 miles). (See page 28.)

West Liberty (109 miles) is situated on *Mad River*, which furnishes a good water-power for the factories and mills at this point.

Bellefontaine (117 miles). (See page 58.)

Kenton (141 miles), the capital of Hardin County, on the *Scioto River*, is a thriving place.

Forest (153 miles) is a village at the crossing of the *Pittsburg, Fort Wayne & Chicago Railway*.

Carey (165 miles). The *Findlay Branch* diverges at this place.

Findlay (16 miles from Carey), the capital of Hancock County, is pleasantly situated on the left bank of *Blanchard's Fork*. It does a large trade with the surrounding country, and possesses wells of inflammable gas of sufficient quantity to light the village. It is connected with Fremont by a railroad which, when finished, will give direct communication with Lima and Union.

Tiffin (181 miles), the capital of Seneca County, on the east bank of the *Sandusky River*, is a compactly and handsomely-built town of some importance.

Clyde (198 miles) is a village at the crossing of the *Lake Shore & Michigan Southern Railway*.

Castalia (209 miles), a handsome village on *Cold Creek*, is noted for the fine springs in the neighborhood, one of which, the source of the creek, has the property of petrification.

Sandusky (215 miles), the capital of Erie County, is situated on the bay of the same name, which 20 miles long, 5 or 6 wide, and has an average depth of 12 feet. The city, which is built over an inexhaustible bed of limestone admirably suited for building-purposes, is handsome and commands a fine view of the bay, the ground rising gradually from the shore. Many of the churches and other buildings are of stone, are attractive, and even elegant. Sandusky has an extensive commerce and many manufactures. The *Lake Erie Division of the Baltimore & Ohio Railway*, formerly the *Sandusky, Mansfield & Newark Railway*, connects here, and connections are also made with a branch of the *Lake Shore & Michigan Southern Railway*, running along the lake from Cleveland to Toledo.

ROUTE III.

CINCINNATI TO ZANESVILLE.

Via Cincinnati & Muskingum Valley Railway.

STATIONS.—Cincinnati—Morrow (junction of Little Miami Railway), 36 miles; Clarksville, 46; Wilmington, 56; Washington, 77; New Holland, 87; Circleville, 104; Amanda, 116; Lancaster (connects with Hocking Valley Railway), 125; New Lexington, 147; Zanesville (connects with Central Ohio Division of Baltimore & Ohio Railway), 168.

This road as far as *Morrow* has been described in ROUTE VI. (See page 41.) It is an important line, passing through a rich and thickly-settled farming country.

Wilmington (56 miles), the capital of Clinton County, one of the principal stations on the road, is situated on *Todd's Fork of the Little Miami River*. It stands on gently-rolling ground, and is well built.

Washington (77 miles), the cap-

ital of Fayette County, is situated on *Paint Creek*, surrounded by a very productive agricultural region.

Circleville (104 miles), the capital of Pickaway County, is a prosperous manufacturing town on the left bank of *Scioto River*, upon the site of an old fortification of a circular form, from which it derives its name. The *Ohio Canal* crosses the river at this place by a handsome aqueduct.

Amanda (116 miles) is a pleasant village.

Lancaster (125 miles), the capital of Fairfield County, is a pretty place, situated in a charming valley. Near the village a pyramidal sandstone rock 200 feet in height rises from the edge of a plain. The *Hocking Valley Railway* connects here, and the *Hocking Canal* affords communication with the *Ohio Canal*.

New Lexington (147 miles), formerly called *Somerset*, the capital of Perry County, is a thriving village.

Zanesville (168 miles). (See page 70.)

ROUTE IV.

CLEVELAND TO PITTSBURG, PA.

Via Cleveland & Pittsburg Railway.

STATIONS. — Cleveland — Newburg, 8 miles; Macedonia, 20; Hudson (connects with Mount Vernon & Delaware Railway), 26; Earlville, 32; Ravenna (connects with Atlantic & Great Western Division of the Erie Railway), 38; Alliance (connects with Pittsburgh, Fort Wayne & Chicago Railway), 57; Bayard (connects with Tuscarawas Branch), 69; Hanover, 75; Salineville, 87; Hammondsville, 95; Yellow Creek (junction Main & River Lines), 99; Wellsville, 102; Liverpool, 106; Rochester (connects with Pittsburg, Fort Wayne & Chicago Railway), 124; Pittsburg (connects with railways diverging), 150.

This road, connecting the Ohio River with Lake Erie, does a large carrying-business.

Cleveland. (See page 17.)

Newburg (8 miles), a rapidly-growing village, is the seat of a large State *Insane Asylum*, situated in the midst of a beautiful grove on the banks of a small creek, which, in the centre of the village,

has a fall of about 60 feet over a ledge of rocks, into a narrow ravine. Newburg has extensive rolling-mills, and a good hotel. It connects with the *Mahoning Division of the Erie Railway*.

Hudson (26 miles), a pleasantly-situated and well-built village, the seat of the *Weston Reserve College*, founded in 1826, connects with the *Mount Vernon & Delaware Railway*.

Ravenna (38 miles). (See page 29.)

Alliance (57 miles). (See page 23.)

Bayard (69 miles) is at the junction of the *Tuscarawas Branch* for New Philadelphia.

New Philadelphia (89 miles), terminus of the Branch, and the capital of Tuscarawas County, stands on a plain on the left bank of the *Tuscarawas River*. There is an abundance of coal and iron-ore in the neighborhood, and in the town are several founderies, manufactories, and machine-shops. The *Ohio Canal* passes near this place.

Yellow Creek (99 miles) is the point where the *River Line* diverges from the *Main Line*.

Wellsville (102 miles) has been described in LAKE AND RIVER TOUR, No. II. (See page 165.) The road here runs along the north bank of the *Ohio River*, of which the traveller obtains a fine view from the cars.

Rochester, Pa. (124 miles), at the mouth of *Beaver River*, is at the junction of the *Cleveland & Pittsburg* and *Pittsburg, Fort Wayne & Chicago Railways*.

Pittsburg, Pa. (150 miles), is fully described in APPLETONS' HANDBOOK OF AMERICAN TRAVEL, NORTHERN AND EASTERN TOUR. Connections are here made with all diverging railways.

ROUTE V.

CLEVELAND TO CINCINNATI.

Via Cleveland, Columbus, Cincinnati, & Indianapolis Railway.

STATIONS. — Cleveland — Galion (crossing of Atlantic & Great Western Division of Erie Railway), 79 miles; Cardington, 97; Delaware (junction of Springfield Branch), 114; Columbus (connects with railways diverging), 138; Cincinnati, 258.

The above list of stations includes only the termini, and those between Columbus and Galion. All the rest of the route is described in another part of the book.

From Cleveland to Galion. (*See* page 58.)

From Columbus to Cincinnati. (*See* page 40.)

Cleveland. (*See* page 17.)

Galion. (*See* page 30.)

Cardington (97 miles) is a thriving village on the eastern branch of the *Olentangy River*.

Delaware (114 miles), the capital of Delaware County, is built upon rolling ground on the right bank of the *Olentangy River*, which is here crossed by a bridge. In 1845 the *Ohio Wesleyan University* was founded in this place, and subsequently the *Ohio Wesleyan Female College*. There is in Delaware a mineral medicinal spring of some reputation. The *Springfield Branch* diverges here.

Columbus (138 miles). (*See* page 26.)

Cincinnati (258 miles). (*See* page 31.)

ROUTE VI.

SANDUSKY TO NEWARK.

Via Lake Erie Division of Baltimore & Ohio Railway.

STATIONS.—Sandusky—Prout's (connects with Huron Branch), 8 miles; Monroeville (connects with Lake Shore & Michigan Southern Railway), 15; Centreton, 27; Shelby Junction (connects with Cleveland, Columbus, Cincinnati & Indianapolis Railway), 42; Mansfield (connects with Pittsburgh, Fort Wayne & Chicago Railway), 54; Belleville, 68; Ankenytown, 79; Mount Vernon, 91; Louisville, 107; Newark (connects with Central Ohio Division, and with Pittsburgh, Cincinnati & St. Louis Railway), 116.

This road was formerly known as the *Sandusky, Mansfield & Newark Railway*, but now forms a part of the *Baltimore & Ohio Railway*, and is the last link in the unbroken line of railway from Lake Erie to the Chesapeake. It crosses the Ohio by a splendid bridge at Parkersburg.

Sandusky. (*See* page 182.)

Prout's (8 miles). A branch to Huron diverges here.

Monroeville (15 miles), on the *Huron River*, is a flourishing and rapidly-growing town at the crossing of the *Lake Shore & Michigan Southern Railway*.

Shelby Junction (42 miles) is the crossing of the *Cleveland, Columbus, Cincinnati & Indianapolis Railway*.

Mansfield (54 miles). (*See* page 24.)

Belleville (68 miles) is a small village on a fork of the *Mohican River*.

Mount Vernon (91 miles), the capital of Knox County, is situated on ground gently rising from the banks of *Vernon River*. It is closely built up, and is a very prosperous little place. The surrounding country is populous and well cultivated. The river affords good water-power.

Newark (116 miles). (*See* page 26.)

ROUTE VI.

COLUMBUS TO ATHENS.

Via Columbus & Hocking Valley Railway.

STATIONS.—Columbus—Winchester, 16 miles; Lancaster (connects with Cincinnati & Muskingum Valley Railway), 32; Logan, 49; Hadenville, 56; Nelsonville, 62; Athens (connects with Marietta & Cincinnati Railway), 76.

This railway was opened in August, 1870, and, although only 76 miles in length, is regarded as one of the most important in the State, it passing through the rich coal and iron deposits of Hocking County.

Columbus. (*See* page 26.)

Lancaster (32 miles). (*See* page 183.)

Logan (49 miles), the capital of Hocking County, is pleasantly situated on the *Hocking River*, a mile below the *Hocking Falls*. The *Hocking Canal* passes through the village, which it is thought will now grow rapidly with the impetus which the opening of the railway has given it. The iron-mines in the neighborhood are of great value.

Nelsonville (62 miles) is a growing village on the *Hocking River*.

Athens (76 miles) the terminus of the road, is described in ROUTE XI. (*See* page 71.)

INDIANA.

INDIANA, the sixth State in the Union in population, is bounded on the north by Lake Michigan, and the State of Michigan; on the east by Ohio, on the south by the Ohio River, and on the west by Illinois. The greatest length from north to south is 278 miles, and its width from east to west 144 miles, the area being 33,809 square miles. There are no mountains in the State, though in some portions of the southern and southwestern counties it is rough and hilly. A large tract of country in the southwest is underlaid by a cavernous limestone.

The first settlements were made by the French early in the eighteenth century, but it was not until after the Revolution, when the American element became infused into the community, that the population increased to any considerable extent. In common with other parts of the West, Indiana suffered greatly by the Indians, but in 1811 the savages were utterly crushed, General Harrison routing them at the battle of Tippecanoe, fought near the present city of Indianapolis. In 1800 Indiana and Illinois were organized as a Territory, and in 1816 the former separated itself, and was admitted into the Union. As in Ohio, the dividing ridge between the waters flowing to the north and those flowing southward is much nearer to the northern boundary than to the Ohio River, and the important rivers of the State, with but one exception, empty into the Ohio. In the western portion of the State there is a vast extent of prairie, but the eastern and northern sections are still heavily timbered, except where the axe of the settler has been at work.

Minerals.—The bituminous coal-fields are very rich, extending, as far as is now known, through 22 counties, and embracing an area of 7,700 square miles. This coal is abundant in the southwestern portion of the State, it being estimated that the average quantity is 50,000,000 bushels to the square mile. Other minerals, such as iron and zinc, are found, and gypsum, marble, and good building-

stone, both sand and limestone, are also met with.

The climate is similar to that of Ohio. In the river-bottoms the soil is a rich loam of great fertility; on the uplands it is not so good. Large tracts of land remain unimproved, but there is little of it which will not well repay the pains of cultivation.

Fruit is abundant in nearly all parts of the State, and the culture of apples, peaches, pears, and other fruits, forms an important branch of the industry of the people.

Indiana is divided into 92 counties. *The population* by the late census was 1,642,451. Indianapolis, the capital and principal city (see page 43), has a population of 40,936. The three cities next in population are Fort Wayne, 17,156; New Albany, 16,205; and Terre Haute, 16,201. The people of the State are mostly farmers, and so, while Indiana has many small villages, it has but few cities. The real estate and personal property in the State are given by the census of 1870 as \$663,455,044, against \$411,042,424 in 1860.

The absence of mountain-ranges, picturesque lakes, and fine scenery, renders the country in many respects unattractive to the tourist, but visits to the coal and iron regions are not without interest. There is one great natural curiosity in Indiana, however, which in itself would repay one the trouble of travelling many miles to see. This is the *Wyandotte Cave* in Crawford County, on the Blue River, five miles from Leavenworth. It is reached by steamer on the Ohio River. (See page 170.) The scenery of *Lost River*, near Salem, and the *Falls of El River*, near Spencer, are very beautiful, and should be visited.

The policy of this State in reference to canals and railways has been liberal and far-sighted, the result being that 453 miles of canal are in successful operation, and that, besides the eight grand trunk lines of railway which cross the State, there are so many local roads that scarce-

ly a village in the State is not either on or near some railroad. The work of building roads continues to be prosecuted with so much activity that the description of the State which may be written for one year will be very incomplete for the next.

The educational system of the State is excellent, and the correctional, reformatory, and charitable institutions, are numerous and well-conducted.

RIVERS.

Indiana is well watered by numerous small streams, which, when utilized, will afford great water-power for manufacturing purposes, but as yet there is but little done in this respect, in proportion to the population. The rivers of the State are only navigable to a limited extent.

The Ohio River, forming the southern boundary of Indiana, together with every place upon its banks of any importance, has been described in **LAKE AND RIVER TOUR, No. II.** (See page 164.)

The Wabash, the principal river, rises in Huntington County, Ohio, and crosses Indiana to the boundary-line of Illinois, where it turns to the south, and for more than 100 miles forms the dividing line between the two States, finally emptying into the Ohio, of which it is the largest tributary from the north. Its total length is 500 miles. In time of high water it is navigable as far as Covington, 300 miles from its mouth; in low stages of water, navigation ceases just above the mouth of *White River*. From Huntington to Terre Haute, 180 miles, the *Wabash & Erie Canal* follows the river.

White River is formed by two branches, the *East* and the *West Fork*, which, after the union in Daviess County, run some 40 or 50 miles in a southwesterly direction, and empty into the Wabash. The *West Fork*, which is the longer of the two, is navigable, in times of high water, to Martinsville, 200 miles from the Wabash. It rises in Randolph County, near the eastern boundary of the State. The *East Fork*, about 250 miles long, commonly called Blue River, until passing *Sugar Creek*, near Edinborough, rises in Henry County. For the greater part of the year it is navigable for flat-boats as far as Rockford.

The Maumee River is formed by the junction of the *St. Joseph's* and *St. Mary's Rivers*, at Fort Wayne, and empties into Lake Erie at Toledo. It is considered a river of Ohio, but is the only one of any size which runs from Indiana into either of the northern lakes.

Blue River. There are three streams of this name in Indiana. One has just been mentioned under the heading of *White River*; another is a tributary of *Eel River*, and the third empties into the Ohio at Leavenworth.

The Tippecanoe rises in *Tippecanoe Lake*, in Kosciusko County, and empties into the Wabash, near Lafayette. It is 200 miles long, is very crooked, and for over 100 miles from its mouth is 60 feet wide and 3 feet deep, the entire year. The *Mississinewa*, *Whitewater*, *Flat Rock*, and *Kankakee*, are also rivers of Indiana.

ROUTE I.

CINCINNATI, OHIO, TO CHICAGO, ILLINOIS.

Via Cincinnati, Hamilton & Dayton and Pittsburg, Cincinnati & St. Louis Railways.

STATIONS.—Cincinnati, Hamilton & Dayton Railway.—Cincinnati—Cummins-ville, 5 miles; Marietta & Cincinnati Junction (connects with Marietta & Cincinnati Railway); 7; Carthage, 10; Lockland, 12; Glendale, 15; Jones, 19; Hamilton (connects with Cincinnati, Richmond & Chicago and Cincinnati & Indianapolis Junction Railways), 25; Collinsville, 36; Somerville, 39; Camden, 44; Eaton, 53; Florence, 60; Richmond (connects with Pittsburg, Cincinnati & St. Louis Railway), 70.

STATIONS.—Pittsburg, Cincinnati & St. Louis Railway.—Richmond, 70 miles from Cincinnati; Washington, 79; Hagerstown (connects with Indianapolis, Cincinnati & Lafayette Railway), 86; Millville, 91; New Castle (connects with Cincinnati & Indianapolis Junction Railway), 97; Sulphur Springs, 104; Middletown, 110; Anderson (connects with Cleveland, Columbus, Cincinnati & Indianapolis Railway), 118; Frankton, 128; Ellwood, 133; Windfall, 142; Kokomo (connects with Indianapolis, Peru & Chicago Railway), 155; Lincoln, 164; Walbaum, 171; Anoka, 173; Logansport (connects with Peoria Line

and with Toledo, Wabash, and Western Railway), 177; Royal Centre, 189; Wnamac, 203; La Crosse (connects with Louisville, New Albany & Chicago Railway), 227; Hebron, 242; Crown Point, 252; Shererville, 259; Chicago (connects with all railways diverging), 294.

Between Cincinnati and Hamilton, this road has been described; Hamilton, the only station of importance, being noticed on page 31.

Camden, O. (44 miles), is a pleasant village, surrounded by a fine farming country.

Eaton, O. (53 miles), the capital of Preble County, is a handsome and prosperous village on *Seven-Mile Creek*, which furnishes a good water-power. It is about one mile east of the site of old Fort St. Clair, which was built in the winter of 1791-'92, General Harrison, then an ensign, commanding the guard.

Richmond, Ind. (70 miles). (See page 42.)

Hagerstown (86 miles), a prosperous town, is situated on a branch of *Whitewater River*, and at the terminus of the *Whitewater Canal*. The *Indianapolis, Cincinnati & Lafayette Railway* connects here.

Newcastle (97 miles), the capital of Henry County, is situated upon *Blue River*, which furnishes a fine water-power. The *Cincinnati & Indianapolis Junction Railway* connects here.

Anderson (118 miles) connects with the *Cleveland, Columbus, Cincinnati & Indianapolis Railway*. (See page 53.)

Kokomo (155 miles), the capital of Howard County, situated on *Wild-cat Creek*, is the seat of the *State Normal School*. It connects with the *Indianapolis, Peru & Chicago Railway*.

Logansport (177 miles). (See page 28.)

The rest of this route is identical with THROUGH ROUTE IV. (See page 28.)

ROUTE II.

CINCINNATI, OHIO, TO CHICAGO, ILL.

Via *Whitewater Valley*, Branch of *Indianapolis, Cincinnati & Lafayette Railway*, known as *Cincinnati & Chicago Air Line*.

STATIONS.—Cincinnati—South Side, 5 miles; Delhi, 11; North Bend, 15; Cleves

16; Valley Junction (connects with the Main Line), 18; Hunt's Grove, 20; Harrison, 25; Longnecker's, 29; New Trenton, 32; Ashby's, 33; Cedar Grove, 37; Cooley's, 39; Brookville, 43; Yellow Bank, 47; Metamora, 52; Colter's, 53; Laurel, 58; Alpine, 62; Nulltown, 64; Connersville (connects with Fort Wayne, Muncie & Cincinnati Railway), 68; Beeson's, 74; Milton, 79; Cambridge City (connects with Indianapolis Division of Pittsburg, Cincinnati & St. Louis Railway), 81; Hagerstown (connects with Cincinnati & Chicago Line of Pittsburg, Cincinnati & St. Louis Railway), 88; Chicago, 296.

North Bend, O. (15 miles), has been described in LAKE AND RIVER TOUR No. II. (See page 168.)

Valley Junction, O. (18 miles). The *Whitewater Valley Branch* diverges here from the *Main Line*.

Brookville, Ind. (43 miles), a lively business town, is reached after a pleasant ride of 25 miles up the *Whitewater Valley*. It is the capital of Franklin County, and is situated at the forks of the *Whitewater River* and on the *Whitewater Canal*. The river furnishes water-power for several mills and factories.

Laurel (58 miles), a growing village, is situated on the *Whitewater River* and *Canal*.

Connersville (68 miles), the capital of Fayette County, is a handsome village, noted for its public buildings; the court-house being one of the most elegant in the State. It stands on the bank of the *Whitewater River*. The *Whitewater Canal* passes through the village. The *Fort Wayne, Muncie & Cincinnati Railway* connects here.

Cambridge City (81 miles), a village on the *Whitewater River* and *Canal*, at the crossing of the *Indianapolis Division of the Pittsburg, Cincinnati & St. Louis Railway*, connects with a *Branch of the Jeffersonville, Madison & Indianapolis Railway*.

Hagerstown (88 miles) is an active business place at the head of navigation on the *Whitewater Canal*. The traveller is transferred here to the track of the *Cincinnati & Chicago Line of the Pittsburg, Cincinnati & St. Louis Railway* (described as ROUTE I. of OHIO).

ROUTE III.

CINCINNATI, OHIO, TO INDIANAPOLIS,
INDIANA.

*Via Cincinnati & Indianapolis Junction
Railway.*

STATIONS.—Cincinnati—Hamilton (connects with Cincinnati, Hamilton & Dayton and Cincinnati, Richmond & Chicago Railways), 25 miles; Oxford, 39; College Corner, 45; Liberty, 52; Brownsville, 59; Connersville (connects with Fort Wayne, Muncie & Cincinnati Railway), 67; Vienna, 76; Rushville, 85; Burlington, 92; Morristown, 98; Fountaintown, 103; Palestine, 109; Indianapolis (connects with railways diverging), 123.

From Cincinnati to Oxford, *see* page 31.

Liberty, Ind. (52 miles), the capital of Union County, contains the county seminary.

Connersville (67 miles) has been described in ROUTE II. (*See* page 187.)

Rushville (85 miles), the capital of Rush County, is a thriving place, situated on *Flat Rock Creek*, at the crossing of the *Columbus, Shelby & Cambridge City Branch of the Jeffersonville, Madison & Indianapolis Railway*. It has a handsome court-house and several pretty churches.

Indianapolis (123 miles). (*See* page 43.)

ROUTE IV.

CINCINNATI, OHIO, TO LAFAYETTE,
INDIANA.

*Via Indianapolis, Cincinnati & Lafayette
Railway.*

STATIONS.—Cincinnati—Sedamsville, 3 miles; River Side, 4; South Side, 5; Anderson's Ferry, 7; Trautman's, 8; Delhi, 11; Devenus, 14; North Bend, 15; Cleves, 16; Valley Junction (connects with Whitewater Division), 18; Elizabethtown, 20; Hardentown, 23; Laurenceburg (connects with Ohio & Mississippi Railway), 25; Newtown, 26; Guilford, 33; Hansell's, 34; Harman's, 40; Weisburg, 42; Sunman's, 46; Spades, 48; Morris, 51; Batesville, 54; New Point, 60; Smith's Crossing, 62; McCoy's, 65; Greensburg, 69; Adams, 75; St. Paul, 80; Waldron, 81; Prescott, 84; Shelbyville (connects with Columbus & Shelby Division of Jefferson-

ville, Madison, & Indianapolis Railway), 88; Fairland (connects with Cincinnati & Martinsville Division), 95; London, 99; Brookfield, 100; Acton, 102; Gallaudet, 106; Indianapolis (connects with St. Louis, Vandalia, Terre Haute, and Indianapolis Railway), 115; Augusta, 125; Zionsville, 130; Whites-town, 136; Holmes's, 139; Lebanon, 143; Hazelrigg, 148; Thorntown, 153; Colfax (connects with stages to Frankfort, etc.), 158; Clarke's Hill, 163; Stockwell, 167; Culver's, 171; Louisville, New Albany & Chicago Crossing (connects with Louisville, New Albany & Chicago and Toledo, Wabash & Western Railways), 178; Lafayette, 179.

As far as Valley Junction, where the Whitewater Valley Division diverges, this route is identical with ROUTE II. of INDIANA.

Laurenceburg, Ind. (25 miles), has been described in ROUTE IX. (*See* page 59.) Leaving this place, the road diverges from the *Ohio River*, which it has followed so far, turning toward the northwest.

Morris (51 miles) is an eating-station; all trains stopping 15 minutes.

Greensburg (69 miles), the capital of Decatur County, is a beautiful and well-built village. It was settled in 1821, and since the construction of the railroad has grown rapidly.

Shelbyville (88 miles), the capital of Shelby County, and the seat of a large seminary, is upon the left bank of *Blue River*. It connects with the *Columbus & Shelby Division of the Jeffersonville, Madison & Indianapolis Railway*.

Fairland (95 miles) is a small village at the junction of the *Cincinnati & Martinsville Division*.

Indianapolis (115 miles). Connections are made here with all diverging railways. (*See* page 43.)

Lebanon (143 miles) is the capital of Boone County.

Thorntown (153 miles) is a good-sized and pleasantly-located village.

Colfax (158 miles) is a small village, connecting with a line of stages for Frankfort.

Frankfort, reached by stage, is the capital of Clinton County. It is on a branch of the *Wild-cat River*.

Lafayette (179 miles) has been described in ROUTE XVI. (See page 84.)

ROUTE V.

MADISON TO CHICAGO, ILLINOIS.

Via Madison Branch of Jeffersonville, Madison & Indianapolis Railway; Main Line of the same; Indianapolis, Peru & Chicago; Chicago, Cincinnati & Louisville, and Lake Shore & Michigan Southern Railways.

STATIONS.—*Jeffersonville, Madison & Indianapolis Railway.*—Madison—Dupont, 14 miles from Madison; North Vernon (connects with Ohio & Mississippi Railway), 24; Seipio, 31; Elizabethtown, 38; Columbus (connects with Main Line), 45; Taylorsville, 51; Edinburg, 55; Amity, 61; Franklin (connects with the Cincinnati & Martinsville Branch of Indianapolis, Cincinnati & Lafayette Railway), 66; Greenwood, 75; Indianapolis (connects with railways diverging), 86.

STATIONS.—*Indianapolis, Peru & Chicago Railway.*—Indianapolis, 86 miles from Madison; Castleton, 97; Noblesville, 108; Cicero, 114; Tipton, 125; Sharpsville, 132; Kokomo (connects with Pittsburg, Cincinnati & St. Louis, formerly Columbus, Chicago & Indiana Central Railway), 140; Miami, 149; Bunker Hill (connects with Pittsburg, Cincinnati & St. Louis Railway), 154; Peru (connects with Toledo, Wabash & Western, and Chicago, Cincinnati & Louisville Railways), 161.

STATIONS.—*Chicago, Cincinnati & Louisville Railway.*—Peru, 161 miles from Madison. Deeds, 171; Rochester, 184; Plymouth (connects with Pittsburg, Fort Wayne & Chicago Railway), 204; Walkerton, 218; Laporte (connects with Lake Shore & Michigan Southern Railway), 234.

STATIONS.—*Lake Shore & Michigan Southern Railway.*—Laporte, 234 miles from Madison; Chesterton, 236; Englewood, 287; Chicago, 296.

Madison has been described in LAKE AND RIVER TOUR No. II. (See page 169.)

North Vernon (24 miles) connects with the *Ohio & Mississippi Railway*.

Columbus (45 miles), the capital of Bartholomew County, is a thriving place, situated on the *East Fork of White River*. The road connects at this place with the *Main Line*, and with the *Columbus, Shelby & Rushville Branch*.

Edinburg (55 miles) is a prosperous village, built upon the bank of *Blue River*, which gives it a good water-power.

Franklin (66 miles), the capital of Johnson County, on *Young's Creek*, is the principal town between Madison and Indianapolis. In this place are *Franklin College* (Baptist), a large county seminary, and several churches. The *Cincinnati & Martinsville Division of the Indianapolis, Cincinnati & Lafayette Railway* connects here.

Indianapolis (86 miles) connects with all diverging railways. (See page 43.)

At Indianapolis we take the *Indianapolis, Peru & Chicago Railway*.

Noblesville (108 miles), the capital of Hamilton County, stands upon a broad plain, highly cultivated. The business and population of the town have increased rapidly since the opening of the railroad. There are several hotels in this place.

Tipton (125 miles), situated on a high prairie, the capital of Tipton County, is a thriving place, rapidly increasing in population and importance.

Kokomo (140 miles) has been described in ROUTE I. of INDIANA. (See page 187.)

Bunker Hill (154 miles) is a small village at the crossing of the *Pittsburg, Cincinnati & St. Louis Railway*.

Peru (161 miles) has been described in ROUTE XV. (See page 83.)

The next link in this chain of roads is the *Chicago, Cincinnati & Louisville Railway*.

Rochester (184 miles), the capital of Fulton County, is situated on *Mill Creek*.

Plymouth (204 miles). (See page 25.)

Laporte (234 miles) connects with *Lake Shore & Michigan Southern Railway*. (For the remainder of this route, see page 22.)

ROUTE VI.

LOUISVILLE, KENTUCKY, TO CHICAGO,
ILLINOIS.

*Via Jeffersonville, Madison & Indianapolis;
Indianapolis, Peru & Chicago; Chicago,
Cincinnati & Louisville, and Lake Shore &
Michigan Southern Railways.*

STATIONS.—*Jeffersonville, Madison & Indianapolis Railway.*—Louisville, Jeffersonville (connects with river steamers); Sellersburg, 9 miles; Memphis, 15; Vienna, 26; Marshfield, 31; Crothersville, 37; Farmington, 46; Seymour (connects with Ohio & Mississippi Railway), 49; Jonesville, 56; Waynesville, 60; Walesboro, 62; Columbus (Junction of Madison Branch and Shelby, Rushville & Cambridge City Branch), 67; Taylorsville, 73; Edinburg, 77; Amity, 83; Franklin, 88; Greenwood, 97; Indianapolis (connects with diverging railways), 108.

STATIONS.—*Indianapolis, Peru & Chicago Railway.*—Indianapolis, 108 miles from Louisville; Castleton, 119; Noblesville, 130; Cicero, 136; Tipton, 147; Sharpsville, 154; Kokomo (connects with Columbus, Chicago & Indiana Central Railway), 162; Miami, 171; Bunker Hill (connects with Columbus, Chicago & Indiana Central Railway), 176; Peru (connects with Toledo, Wabash & Western and Chicago, Cincinnati & Louisville Railways), 183.

STATIONS.—*Chicago, Cincinnati & Louisville Railway.*—Peru, 183 miles from Louisville; Decds, 193; Rochester, 206; Plymouth (connects with Pittsburg, Fort Wayne & Chicago Railway), 226; Walkerton, 240; Laporte (connects with Lake Shore & Michigan Southern Railway), 256.

STATIONS.—*Lake Shore & Michigan Southern Railway.*—Laporte, 256 miles from Louisville; Chesterton, 258; Englewood, 309; Chicago, 315.

Louisville, the largest city in Kentucky, and the second in size on the Ohio River, is described in APPLETONS' *HAND-BOOK OF AMERICAN TRAVEL*—SOUTHERN TOUR.

Jeffersonville, Ind., has been described in *LAKE AND RIVER TOUR* No. II. (See page 169.)

Seymour (49 miles) is the crossing of the *Ohio & Mississippi Railway*.

Columbus (67 miles), junction of

the *Madison Division*, and of the *Shelby, Rushville & Cambridge City Branch*. This town and the remainder of the route have been described as *ROUTE V. of INDIANA*.

ROUTE VII.

LOUISVILLE, KENTUCKY, TO CHICAGO,
ILLINOIS.

*Via Louisville, New Albany & Chicago and
Michigan Central Railways.*

STATIONS.—Louisville (connects with railways diverging); New Albany (connects with river steamers); Providence, 18 miles; Salem, 35; Mitchell (connects with Ohio & Mississippi Railway), 61; Bedford, 71; Bloomington, 96; Gosport (connects with Indianapolis & Vincennes Railway), 113; Greencastle (connects with Terre Haute & Indianapolis Railway), 139; Bainbridge, 148; Crawfordsville (connects with Indianapolis, Bloomington & Western Railway), 170; Junction, 196; Lafayette (connects with Toledo, Wabash & Western, and Indianapolis, Cincinnati & Lafayette Railways), 197; Brookston, 211; Reynolds (connects with Western Division Columbus, Chicago & Indiana Central Railway), 221; Francesville, 237; La Crosse (connects with Chicago Division Columbus, Chicago & Indiana Central Railway), 260; Wana-tah (connects with Pittsburg, Fort Wayne & Chicago Railway), 267; La Croix (connects with Lake Shore & Michigan Southern Railway), 279; Michigan City (connects with Michigan Central Railway), 288; Chicago, 344.

Louisville, Ky., the largest city in the State, is described in APPLETONS' *HAND-BOOK OF AMERICAN TRAVEL*—SOUTHERN TOUR.

New Albany, Ind., has been described in *LAKE AND RIVER TOUR*, No. II. (See page 170.)

Salem (35 miles), the capital of Washington County, stands on rolling ground near the source of *Blue River*. *Lost River*, which rises in this county, is an interesting stream. At one point it sinks into the earth and runs in a subterranean channel for 11 miles, and then rises to the surface and unites with *Lick Creek*, a tributary of *White River*.

Mitchell (61 miles) is a village at

the crossing of the *Ohio & Mississippi Railway*.

Bedford (71 miles), the capital of Lawrence County, on the *East Fork of White River*, is well built, pleasantly situated, and has a good local trade.

Bloomington (96 miles), the capital of Monroe County, and the seat of the *State University*, was settled in 1819. It stands on the dividing ridge between the *East and West Forks of White River*.

Gosport (113 miles), on the *West Fork of White River*, the principal commercial town of Owen County, connects with the *Indianapolis & Vincennes Railway*.

Greencastle (139 miles) has been described in ROUTE VII. (See page 44.)

Crawfordsville (170 miles), the capital of Montgomery County, beautifully situated on *Sugar Creek*, is in the midst of a fine and well-wooded farming country, in which coal is abundant. Its educational advantages are unusually good, it having excellent public schools, and being the seat of *Wabash College*, founded in 1835. Manufacturing is carried on to some extent at this point, *Sugar Creek* affording good water-power.

Lafayette (197 miles) has been described in ROUTE XVI. (See page 84.)

Reynolds (221 miles) is a village at the crossing of the *Western Division of the Columbus, Chicago & Indiana Central Railway*.

La Crosse (260 miles) is a village at the crossing of the *Chicago Division of the Columbus, Chicago & Indiana Central Railway*.

Wanatah (267 miles) is a small village at the crossing of the *Pittsburg, Fort Wayne & Chicago Railway*.

La Croix (279 miles) is the crossing of the *Lake Shore & Michigan Southern Railway*.

Michigan City (288 miles). From this point the road follows the line of the *Michigan Central Railway*. (See page 6.)

ROUTE VIII.

INDIANAPOLIS TO VINCENNES.

Via Indianapolis & Vincennes Railway.

STATIONS. — Indianapolis: Moresville, 16 miles; Martinsville (connects with

Cincinnati & Martinsville Division of the Indianapolis, Cincinnati & Louisville Railway), 30; Gosport (connects with Louisville, New Albany & Chicago Railway), 44; Spencer, 53; Worthington, 71; Marco, 86; Edwardsport, 96; Vincennes (connects with Ohio & Mississippi and Evansville & Crawfordsville Railways), 116.

This line is a short but important one. For almost its entire length the road follows the valley of the *West Fork of White River*.

Indianapolis. (See page 43.)

Martinsville (30 miles), the capital of Morgan County, is an important place, being, in times of high water, at the head of navigation on the *West Fork of White River*. It is surrounded by a rich farming country, for which it is the shipping-port and market, and is the western terminus of the *Cincinnati & Martinsville Branch of the Indianapolis, Cincinnati & Lafayette Railway*.

Gosport (44 miles) has been described in ROUTE VII. of INDIANA. (See page 191.)

Spencer (53 miles), the capital of Owen County, situated on the *West Fork of White River*, is the shipping-port of a large section of country. The *Falls of El River* in this country are very beautiful.

Vincennes (116 miles) has been described in ROUTE IX. (See page 60.)

ROUTE IX.

INDIANAPOLIS TO DANVILLE, ILL.

Via Indianapolis, Bloomington & Western Railway.

STATIONS. — Indianapolis: Pittsboro', 18 miles; Jamestown, 28; Crawfordsville (connects with Louisville, New Albany & Chicago Railway), 44; Hillsboro', 59; Covington, 72; Danville (connects with Toledo, Wabash & Western Railway), 85.

This short road is of great importance as forming a link in the shortest line between Indianapolis and Omaha.

Crawfordsville (44 miles) has been described in ROUTE VII. of INDIANA. (See page 191.)

Covington (72 miles), the capital

of Fountain County, is an important village on the east bank of the *Wabash River* and upon the *Wabash & Erie Canal*. In the vicinity are large fields of coal and iron-ore, and great quantities of grain are shipped here both by rail and canal. The river is crossed at this point by a handsome bridge.

Danville, Ill. (85 miles), has been described in ROUTE XVI. (See page 84.)

This Route will be continued westward as ROUTE XII. of ILLINOIS.

ROUTE X.

EVANSVILLE TO TERRE HAUTE AND ROCKVILLE.

Via Evansville & Crawfordsville Railway.

STATIONS. — Evansville (connects by ferry with Evansville, Henderson & Nashville Railway, and with river steamers):

Ingles, 10 miles; Princeton, 27; Decker's, 40; Vincennes (Junction of Ohio & Mississippi Railway), 51; Emison's, 61; Carlisle, 73; Shelburn, 90; Hartford, 98; Terre Haute (connects with Terre Haute & Indianapolis and Indianapolis & St. Louis Railways), 109; Rosedale, 122; Rockville, 132.

Evansville has been described in LAKE AND RIVER TOUR, No. II.

Princeton (27 miles), the capital of Gibson County, is well situated in the midst of a productive country.

Vincennes (51 miles) has been described in Route IX. (See page 60.)

Terre Haute (109 miles) has been described in ROUTE VII. (See page 45.)

Rockville (132 miles) is the capital of Parke County, and the present terminus of the road. The country about the town is cut up into productive farms. Coal is abundant in the neighborhood.

ILLINOIS.

ILLINOIS, the fourth State of the Union in population, and the first in the production of breadstuffs, extends northward 380 miles, and westward (at the extremest point) 200 miles. It is bounded by Wisconsin on the north, Lake Michigan and Indiana on the east, Kentucky on the south (the Ohio between), and Missouri and Iowa on the west, the Mississippi River intervening. The general surface of the country here, as in Indiana and Ohio, is that of elevated table-lands, inclining southward, though it is more level than the neighboring States. In the lower portions there are a small stretch of hilly land, and some broken tracts in the northwest; and upon the Illinois River there are lofty bluffs, and yet higher and bolder points on the Mississippi.

The great landscape feature of Illinois is its prairies, which are seen in almost every part of the State. The want of variety, which is ordinarily essential to landscape attraction, is more than made up in the prairie scenery. As far as the eye can reach, the great unvarying plain

rolls on; its sublime grandeur softened but not weakened by the occasional groups of trees in its midst, or by the forests on its verge, or by the countless flowers everywhere upon its surface. The prairies abound in game. The prairie-duck, sometimes but improperly called grouse, are abundant in September and October.

Perhaps the most striking picture of the prairie country is to be found on *Grand Prairie*. Its gently-undulating plains, profusely decked with flowers of every hue, and skirted on all sides by woodland copse, roll on through many long miles from Jackson County, northeast to Iroquois County, with a width varying from one to a dozen or more miles. The uniform level of the prairie region is supposed to result from the deposit of waters by which the land was ages ago covered. The soil is entirely free from stones, and is extremely fertile. The most notable characteristic of the prairies, their destitution of vegetation, excepting in the multitude of rank grasses and flowers, will gradually dis-

appear, since nothing hinders the growth of the trees but the continual fires which sweep over the plains. These prevented, a fine growth of timber soon springs up; and as the woodlands are thus assisted in encroaching upon and occupying the plains, settlements and habitations will follow, until the prairie tracts are overrun with cities and towns. Of the thirty-five and a half millions of acres embraced within the State, but thirteen millions, or little more than one-third, were improved in 1860. The census of 1870 exhibits a great increase. Despite the wonderful progress in population and production, however, Illinois is yet only in her infancy. Excepting the specialty of the prairie, the most interesting landscape scenery of this State is that of the bold, acclivitous river-shores of the Mississippi, the Ohio, and the Illinois Rivers.

The population of Illinois, in 1860, was 1,711,951; in 1870 it was 2,539,638, which exceeds that of the States of Delaware, Florida, California, Connecticut, Nebraska, Nevada, New Hampshire, Oregon, Rhode Island, and Vermont, combined. The total valuation of real estate and personal property in Illinois is given by the census of 1870 as \$764,787,000, against \$389,207,372 in 1860.

The *agricultural capabilities* of Illinois are unsurpassed by those of any State in the Union. The soil on the river-bottoms is often 25 or 30 feet deep, and the upper prairie districts are hardly less productive. The richest tracts are the Great American Bottom, lying along the Mississippi, between the mouths of the Missouri and the Kaskaskia Rivers, a stretch of 80 miles, the country on the Rock River and its branches, and that around the Sangamon and other waters. Thirty to 40 bushels of wheat, or 80 to 100 bushels of Indian corn to the acre, is by no means an uncommon product here. In the growth of Indian corn, Illinois ranks as the first State in the Union. In respect to other agricultural staples and products, what we have said of the adjoining States of Ohio and Indiana may be applied to Illinois; so of the forest-trees of the country.

In *mineral resources* the State is well provided. It shares, with the adjoining States of Iowa and Wisconsin, extensive

supplies of lead. The trade in this mineral is the chief support of the prosperous town of Galena, in the northwest part of Illinois. According to Taylor, the coal-fields of the State occupy an area of 41,000 square miles. Bituminous coal exists everywhere, and may be obtained in many places without excavation. The bluffs, near the Great American Bottom, contain immense beds of this valuable product. Mines are worked near Peoria, along the line of the *Illinois Central Railway*, and at many other points. In the southern part of the State iron is abundant; and in the north, copper, zinc, lime, fine marbles, freestone, gypsum, and quartz-crystals. Silver, too, is found in St. Clair County. At Peoria, in the immediate neighborhood of the city, is a valuable spring, strongly impregnated with sulphur.

Medicinal springs, sulphur and chalybeate, are found in various parts of the State. In Jefferson County there is a spring much frequented, and in the southern part of the State are some waters strongly impregnated with Epsom salts.

RIVERS AND LAKES.

The Mississippi forms the entire western boundary of the State, and many of the most remarkable pictures, for which its upper waters are famous, occur in this region—the tall, fantastically shaped bluffs rising at different points to the height of from 100 to 500 feet. The *Fountain Bluff* of the Mississippi is in Jackson County; it is oval-shaped, is six miles in circuit, and 300 feet in height. The summit is full of sink-holes. (*See LAKE AND RIVER TOUR, No. I.*)

The Illinois, the largest river of the State, flows through its centre south-westerly into the Mississippi, 20 miles above Alton. Exclusive of its branches, the Des Plaines and the Kankakee, its length is about 320 miles. Its navigable waters extend at some seasons 206 miles to Ottawa, at the mouth of the Fox River. Peoria is upon its banks, 200 miles from its mouth.

The picturesque heights of the Illinois, called the Starved Rock, and the Lover's Leap, are frequently visited by tourists in search of the curious. *Starved Rock,*

eight miles below Ottawa, is a grand perpendicular limestone cliff, 150 feet in height. *Lover's Leap* is a precipitous ledge, just above Starved Rock, and directly across the river is *Buffalo Rock*, a height of 100 feet. *Peoria Lake* is an expansion of the Illinois, near the middle of the State. Above Vermilion River there are some rapids, which boats pass only in periods of high water.

The Ohio bounds the State on its southern extremity. It is in this part of Illinois (Hardin County) that the famous *Cave in the Rock* of the Ohio shore occurs. (See LAKE AND RIVER TOUR, No. II.)

The Wabash, on the eastern boundary, divides Illinois in the lower portion from Indiana. (See INDIANA.)

Rock River has its source in the neighborhood of Lake Winnebago, in Wisconsin, and flows a distance of 330 miles to the Mississippi, a little below the town of Rock Island. It enters Illinois near Beloit, and afterward passes Rockford and Dixon. Its course is through a rich valley or plain, remarkable for its pictorial interest. The navigation of its waters is much obstructed by rapids; for it is, unlike the sluggish Illinois, a bold, swift stream. Small steamboats ascend sometimes, however, 225 miles, to Jefferson, in Wisconsin.

The Des Plaines flows 150 miles from the southeast corner of Wisconsin to Dresden, where it unites with the Kankakee, and forms the Illinois.

The Kankakee comes from the northern part of Indiana, 100 miles to Dresden. Its course is sluggish, and through a region chiefly occupied by prairies and marshes. The stream abounds in game, and during the duck-shooting season is much frequented by sportsmen from Chicago and the neighborhood.

The Sangamon enters the Illinois, about 10 miles above Beardstown, after a course of nearly 200 miles. Small steamers ascend it at high water.

The Fox River rises in Waukecha County, Wisconsin, and, after passing the towns of Elgin, St. Charles, Geneva, Batavia, and Aurora, falls into the Illinois at Ottawa.

The *Vermilion*, the *Enbarras*, and the

Little Wabash, are tributaries of the Wabash from Illinois.

Lake Michigan forms 60 miles of the northern boundary of the State. (See chapter on MICHIGAN.) Excepting the expansion of the Illinois River, called Lake Peoria, and the waters of Pishtaka, in the northeast, there are no lakes of importance.

Railways intersect Illinois in every direction. They are all described in the preceding pages of the volume, and in this chapter. In 1850 there were less than 50 miles of railroad in the entire State; in 1871, there were 4,823 miles

ROUTE I.

CHICAGO TO CAIRO.

Via Chicago Branch Illinois Central Railway.

STATIONS. — Chicago: Calumet (connects with Michigan Central Railway), 14 miles; Homewood, 24; Matteson (crossing of the Joliet Branch), 28; Monce, 34; Peotone, 40; Manteno, 47; Kankakee, 56; Chebanse, 64; Clifton, 69; Ashkum, 73; Danforth, 77; Gilman (connects with Toledo, Peoria & Warsaw Railway), 81; Onarga, 85; Bulkley, 93; Loda, 99; Paxton, 103; Rantoul, 114; Thomasboro', 119; Champaign (connects with Indianapolis, Bloomington & Western Railway), 128; Tolono (connects with Toledo, Wabash & Western Railway), 137; Tuscola, 150; Okaw, 158; Milton, 164; Mattoon (connects with Indianapolis & St. Louis Railway), 173; Neoga, 185; Sigel, 191; Effingham (connects with St. Louis, Vandalia, Terre Haute & Indianapolis Railway), 199; Watson, 206; Mason, 212; Edgewood (connects with Springfield & Illinois Southeastern Railway), 215; Farina, 223; Kimmunday, 229; Odin (connects with Ohio & Mississippi Railway), 244; Centralia (junction with main line), 253; Richview, 263; Ashley (connects with St. Louis & Southeastern Railway), 266; Tamaroa, 280; Du Quoin (connects with Belleville & Southern Illinois Division of St. Louis, Alton & Terre Haute Railway), 289; De Soto, 302; Carbondale (connects with Branch to Grand Tower), 308; Makanda, 317; Cobden, 323; Jonesboro', 329; Dongola, 339; Wetaug, 341; Pulaski,

349; Villa Ridge, 353; Mounds, 357; Cairo (connects by ferry with Mobile & Ohio Railway at Columbus), 365.

Chicago. (See page 6.)

Calumet, (14 miles) connects with the *Michigan Central Railway*.

Matteton (28 miles) is at the crossing of the *Joliet Branch* known as the *Joliet Cut-off*.

Monroe (34 miles) is the highest point on the road, being upon the dividing ridge between Lake Michigan and the Mississippi.

Kankakee (56 miles), the capital of Kankakee County, is upon the river of the same name, which is one of the principal tributaries of the Illinois. When the railroad was commenced, a forest stood upon the site of this important town. In the immediate neighborhood of Kankakee are quarries of a superior kind of limestone.

Clifton (69 miles) is supplied with water by means of artesian wells, a constant supply being obtained at a depth of from 80 to 100 feet. The streets are well graded and planted with shade-trees.

Gilman (81 miles), a rapidly-growing town, connects with the *Toledo, Peoria & Warsaw Railway*.

Onarga (85 miles) is in the midst of a noted fruit-region. It is the site of the Onarga Institute and the Grand Prairie Seminary, both flourishing institutions.

Loda (99 miles), beautifully located on undulating ground in the centre of Grand Prairie, is the market for the agricultural products of the surrounding country.

Paxton (103 miles), the capital of Ford county, is the seat of a Swedish college named the *Augustina College of North America*, which has in its library 5,000 volumes presented by the King of Sweden. The schools of Paxton are remarkably good.

Champaign (128 miles), connecting with the *Indianapolis, Bloomington & Western Railway*, is one of the most prosperous places on the line of the road. Its schools are large and well conducted.

Tolono (137 miles) is at the crossing of the *Toledo, Wabash & Western Railway*.

Tuscola (150 miles) is the capital of Douglas County. The first house was built in 1857; since then the place has grown very rapidly, and has now a population of about 2,500.

Mattoon (173 miles). (See page 59.)

Effingham (199 miles), the capital of Effingham County, is a thriving place. It connects with the *St. Louis, Vandalia, Terre Haute & Indianapolis Railway*.

Edgewood (215 miles) connects with the *Springfield & Illinois Southeastern Railway*.

Kinmunday (229 miles) is one of the most rapidly-growing places in this part of Illinois. It is particularly noted for the fine fruit raised in the neighborhood.

Odin (244 miles) is a very prosperous place, at the crossing of the *Ohio & Mississippi Railway*.

Centralia (253 miles), connecting with the *Main Line of the Illinois Central Railway*, is a busy town of between 5,000 and 6,000 inhabitants. The cultivation of fruit receives much attention in this neighborhood, and very large quantities of peaches are shipped annually to Chicago.

Ashley (266 miles), situated on a rolling and well-watered prairie, connects with the *St. Louis & Southeastern Railway*.

Tamara (280 miles) is a flourishing place, situated in the midst of a rich fruit-growing region. It does a large coal-shipping trade, coal of a superior quality being found in the neighborhood.

Du Quoin (289 miles), is a rapidly-growing city of about 5,000 inhabitants, surrounded by fertile prairie-land, diversified here and there by belts of fine timber. Fruit-raising, tobacco and cotton growing, and general agriculture, are great sources of prosperity to the place; but the principal business is coal-mining, about a dozen companies being in active operation. The *Belleville & Southern Illinois Division of St. Louis, Alton & Terre Haute Railway* connects at this point.

Carbondale (308 miles) is a very busy town, having a number of cotton-gins, mills, etc., the leading productions of the adjacent plantations being cotton and tobacco. One-fourth of all the

tobacco grown in the State is sent to market from this place.

Makanda (317 miles), lying between two rocky bluffs, is the centre of a rich farming country, particularly well adapted to fruit-growing.

Jonesboro (329 miles), the capital of Union County, is a prosperous place, situated in a hilly country about four miles from the Mississippi River. Limestone crops out among the hills, fine building-stone abounds, and iron-ore is found in the neighborhood. Near the village are some remarkable springs and large caves. Jonesboro is the principal town of the great fruit-region of Southern Illinois, and is also the mart of large crops of cotton. The *Southern State Insane Asylum* is building at this place, and will probably be finished this year. *Bald Knob*, the highest point of land in the State, is five miles north of Jonesboro.

Villa Ridge (353 miles) is at the commencement of a series of ridges or terraces, rising from the Mississippi River and extending to and along the Ohio, furnishing excellent sites for villas, vineyards, and orchards. Fruit, tobacco, cotton, and sorghum, are extensively cultivated and thrive well in this part of the State.

Mounds (357 miles). From here *Mound City*, three miles distant, is reached.

Cairo (365 miles) is described in LAKE AND RIVER TOUR No. II. (See page 172.) A ferry connects the city with the *Mobile & Ohio Railway* at Columbus, Ky.

ROUTE II.

CHICAGO TO ST. LOUIS.

Via Chicago & Alton Railway (Air Line).

STATIONS. — Chicago: Bridgeport, 4 miles; Summit, 12; Willow Springs, 18; Lemont, 26; Lockport, 33; Joliet (connects with Chicago, Rock Island & Pacific Railway), 37; Elwood, 46; Hampton, 49; Wilmington, 53; Braidwood, 58; Braceville, 61; Gardner, 65; Dwight (connects with Western Division), 74; Odell, 82; Cayuga, 87; Pontiac, 92; Chenoa (connects with Toledo, Peoria & Warsaw Railway), 103; Lexington, 111; Towanda, 119; Nor-

mal (connects with main line of Illinois Central Railway), 124; Bloomington (Jacksonville Division diverges, uniting with main line again at Godfrey), 126; Shirley, 133; McLean, 141; Atlanta, 146; Lawn Dale, 150; Lincoln, 157; Broadwell, 164; Elkhart, 168; Williamsville, 174; Springfield, 185; Toledo, Wabash & Western Railway Junction), 187; Chatham, 194; Auburn, 200; Virden, 206; Girard, 210; Nilwood, 214; Carlinville, 223; Macoupin, 230; Shipman, 238; Brighton (connects with Rockford, Rock Island & St. Louis Railway), 245; Godfrey (Jacksonville Division unites), 252; Alton (connects with Indianapolis & St. Louis Railway), 257; Milton, 261; Mitchell, 269; Kinder, 274; Venice, 276; East St. Louis (connects with all divergent railway and steamboat lines), 280.

This road runs through a part of the State similar in every respect to that traversed by the Chicago Division of the Illinois Central Railway, described in the preceding Route.

Lockport (33 miles), a prosperous town on the *Des Plaines River*, and on the *Illinois & Michigan Canal*, derives a large revenue from its stone-quarries. It has a fine water-power.

Joliet (37 miles). (See page 75.)

Wymington (53 miles), on the *Kankakee River*, from which it derives a water-power, has a thrifty and rapidly-increasing population.

Dwight (74 miles). The *Western Division* of the road diverges at this place.

Pontiac (92 miles), the capital of Livingston County, is situated on the *Vermilion River*, in a fine grain-raising country. It is something of a milling-town as well as a large grain-depot.

Chenoa (103 miles). (See page 81.)

Normal (124 miles) is surrounded by the largest nurseries in the State, and by farms devoted to the cultivation of hedge-plants. Coal-mines are worked in the vicinity. The *State Normal University* and the *Soldiers' Orphans' Home* are located in the city. Connections both here and at Burlington are made with the *Main Line of the Illinois Central Railway*.

Bloomington (126 miles), the capital of McLean County, is one of the principal cities in the State. It is a

great railroad centre, and is increasing rapidly in population and wealth, while the surrounding country is fast filling up, farms are being cultivated, and large droves of cattle are fattened for the market, grazing and hay-making being very profitable in this region. The city is handsomely built, is lighted by gas, has street railways, and, unlike most young Western "cities," is one in fact as well as in name. Steam fire-engines are in use, and the principal streets are being macadamized. Some of the churches are very tasteful in design, and well built; one of the school-houses cost \$30,000. Many of the stores are large and well stocked, and the wholesale houses compete with those of Chicago and St. Louis for the trade of the neighboring towns. The Market, Opera-House, Amphitheatre, etc., are large buildings calculated rather to meet the growing wants of the city than the present demand. There are excellent public schools, two boarding-schools for girls, and a Roman Catholic seminary. Two daily papers are published here. The shops of the Chicago & Alton Railway Company, for the construction and repair of cars and locomotives, are built of stone, and with the yards attached cover 13 acres of ground. There are numerous mills and factories of all descriptions. The population of the place is about 15,000. The *Jacksonville Branch* diverges at this place, reuniting with the Main Line at Godfrey. Bloomington connects with the *Illinois Central* and the *Indianapolis, Bloomington & Western Railways*.

Atlanta (146 miles) stands upon a high prairie. It is a thriving, active place, having a good trade with the surrounding country, and shipping large herds of cattle and quantities of grain.

Lincoln (157 miles), named in honor of the late President Lincoln, is the capital of Logan County. It is situated on *Salt Creek*. Although only founded a few years ago, it is already a place of some importance.

Springfield (185 miles). (See page 84.)

Auburn (200 miles) is in the midst of a rich farming country, and is rapidly increasing in importance and population.

Carlinville (223 miles), the capital of Macoupin County, is a prosperous and attractive village. It is the seat of *Blackburn Theological Seminary*.

Brighton (215 miles) is at the crossing of the *Rockford, Rock Island & St. Louis Railway*.

Godfrey (252 miles) is a small village at the junction of the *Chicago & Alton Railway* with the *Jacksonville Division*.

Alton (257 miles). (See page 162.)

East St. Louis (280 miles). (See page 46.)

ROUTE III.

CHICAGO TO QUINCY.

Via Chicago, Burlington & Quincy Railway.

STATIONS.—Chicago: River Side, 12; Hinsdale, 18; Downer's Grove, 23; Naperville, 29; Aurora, 38; Bristol, 46; Plano, 53; Somanauk, 60; Leland, 66; Earl, 73; Mendota (connects with Illinois Central Railway), 84; Arlington, 92; Malden, 99; Princeton, 105; Chicago, Rock Island & Pacific Railway Junction, 113; Buda (connects with Buda & Rushville Branch), 117; Neponset, 124; Kewanee, 132; Galva (connects with Galva & New Boston Branch), 140; Altona, 147; Onida, 151; Wataga, 156; Galesburg (connects with Branches to Burlington and Peoria), 163; Abingdon, 173; St. Augustine, 179; Avon, 183; Prairie City, 186; Bushnell (connects with Toledo, Peoria & Warsaw Railway and with Rockford, Rock Island & St. Louis Railway), 192; Bardolph, 196; Macomb, 204; Colchester, 210; Tennessee, 212; Colmar, 218; Plymouth, 223; Augusta, 227; La Prairie, 234; Camp Point (connects with Toledo, Wabash & Western Railway), 242; Coatsburg, 247; Paloma, 250; Cliola, 254; Quincy (connects with Hannibal & St. Joseph Railway), 263.

From Chicago to Galesburg, this route is identical with Route XIV. (See page 78.)

Bushnell (192 miles), a rapidly-growing village of some importance, connects with the *Toledo, Peoria & Warsaw* and the *Rockford, Rock Island & Pacific Railways*.

Macomb (204 miles), a large and beautiful village, the capital of MacDonough County, stands upon a rich and highly-cultivated prairie. It is the shipping-point for an extensive agricultural region.

Camp Point (242 miles) is a village at the junction with the *Toledo, Wash & Western Railway*.

Quincy (263 miles). (See page 162.)

ROUTE IV.

CHICAGO TO DUNLEITH, ILL., AND DUBUQUE, IOWA.

Via Galena Division of Chicago & North Western Railway and the Centralia Division of Illinois Central Railway.

STATIONS ON THE GALENA DIVISION OF THE CHICAGO & NORTHWESTERN RAILWAY.—Chicago: Austin, 6 miles; Harlem, 9; Elmhurst, 16; Lombard, 20; Danby, 23; Wheaton, 25; Winfield, 28; Junction (diverges from main line), 30; Wayne, 36; Clintonville, 39; Elgin, 42; Gilbert's, 50; Huntley, 55; Union, 63; Marengo, 66; Garden Prairie, 72; Belvidere, 78; Cherry Valley, 84; Rockford, 93; Winnebago, 100; Pekatonica, 107; Ridott, 114; Freeport (connects with Western Union Railway), 121.

STATIONS ON THE CENTRALIA DIVISION OF THE ILLINOIS CENTRAL RAILWAY.—Eleroy, 129 miles from Chicago; Lena, 133; Nora, 141; Warren (connects with Mineral Point Railway), 144; Apple River, 150; Scales Mound, 159; Council Hill, 164; Galena, 171; Menominee, 180; Dunleith, 188; Dubuque (connects with Iowa division and with Dubuque Southwestern Railway), 189.

Chicago. (See page 6.)

Belvidere (78 miles), the capital of Boone County, is on the Kishwaukee River. It is situated in a fertile and undulating country, and has an active trade.

Rockford (93 miles) is a flourishing city, on both sides of Rock River. It is the capital of Winnebago County, is the centre of active business, and has abundant water-power. The city has nearly all been built since 1836.

Freeport (121 miles), the capital of Stephenson County, is on the Pekatonica River, at the junction of the Cen-

tral Railway (main line) and the *Galena Division of the Chicago & Northwestern*.

Galena (171 miles), a flourishing city, the capital of Daviess County, is on *Fevre River*, six miles from its entrance into the Mississippi River, 450 miles above St. Louis. "The river on whose rocky shelf this town is built is more properly an arm of the Mississippi River, setting up between lofty bluffs, around whose base it winds with picturesque effect. The streets rise one above another, and communicate with each other by flights of steps, so that the houses on the higher streets are perched like an eagle's eyrie, overlooking the rest, and commanding an extensive prospect. Pleasant churches meet the eye on the first ledge or terrace above the levee, and private residences, wearing an aspect of neatness and comfort, adorn each successive height."* Galena owes its growth and importance mainly to the rich mines of lead which surround it in all directions. Copper is found in large quantities in connection with the lead. The *Fevre River* is navigable by steamboats, which make regular trips to St. Louis, St. Paul, and other ports on the Mississippi River. Galena has a large and rapidly-increasing trade. It derives its name from a species of lead-ore. President Grant made this city his home for many years. An error in the spelling and pronunciation of *Fevre River* (named after La Fevre, an early French trader) has given some currency to an unfounded impression that Galena is an unhealthy place. Population, 7,019.

Dunleith (188 miles), the capital of Jo Daviess County, is on the east bank of the Mississippi River, opposite Dubuque.

Dubuque (189 miles). (See page 161.)

ROUTE V.

CHICAGO, ILLINOIS, TO MADISON, WISCONSIN.

Via Madison Division of Chicago & Northwestern Railway.

STATIONS.—Chicago: Canfield, 12 miles; Des Plaines, 17; Palatine, 26; Barrington, 32; Crystal Lake, 43; Woodstock, 51;

* Thompson's Letters.

Harvard (Wisconsin Division and Kenosha Division diverge), 63; Caledonia, 78; Beloit (connects with Western Union Railway), 91; Afton, 98; Hanover, 104; Magnolia, 111; Oregon, 128; Madison (connects with railways diverging), 138.

Chicago. (See page 6.)

Crystal Lake (43 miles) is a pretty village, on a small lake of the same name.

Harvard (63 miles) is a village at the intersection of the *Chicago & Northwestern* and *Kenosha & Rockford Railways*.

Caledonia (78 miles) is a village at the intersection of the *Kenosha & Rockford Railway* and the *Madison Division*.

Beloit (91 miles), a flourishing city in Rock County, Wisconsin, is situated at the mouth of *Turtle Creek*, upon two plains, one rising abruptly 60 or 70 feet from the other. It is regularly laid out with public grounds, broad streets, ornamented with shade-trees, and surrounded by fine prairie country, interspersed with groves of timber. The city is noted for its fine churches. One of these, the First Congregational, is built of stone, and is one of the largest and most beautiful in the State. There are good public schools in the place, and *Beloit College*, founded in 1846, a flourishing academy, richly endowed. The *Chicago & Northwestern Railway* connects at Beloit with the *Western Union Railway*.

Madison (138 miles), the capital of the State of Wisconsin, and seat of justice of Dane County, is delightfully situated on an isthmus between Lakes Mendota and Monono, in the centre of a broad valley—surrounded by heights, from which the city can be seen at a distance of several miles. *Lake Mendota*, a beautiful sheet of water, lies on the northwest side of the town. It is six miles long by four miles wide, and deep enough for the navigation of steamboats. *Lake Monono* is smaller. In 1836, when Madison was selected for the seat of government, the only house it contained was one miserable log-cabin. It is now handsomely built up, and contains several fine structures, among which are the *Capitol* and the *University of Wisconsin*. The Capitol, built of stone, at a cost of \$500,000, is a state-

ly edifice, standing in the centre of a public park, on ground 70 feet above the level of the lakes. The streets leading from this building toward the cardinal points descend gradually to the shores of the lakes, except the one which extends westward to College Hill. On this eminence, one mile west of the Capitol, and about 125 feet above the lake, stands the University, founded in 1849. Madison has some large manufactories, but is most noted as an agreeable place of summer resort, and is much frequented by pleasure-seekers. Railroads radiate from the city toward the north, south, east, and west. Population in 1860, 6,611; 1870, about 10,000.

ROUTE VI.

CHICAGO, ILLINOIS, TO KENOSHA, WISCONSIN.

Via Milwaukee Division Chicago & Northwestern Railway.

STATIONS.—Chicago: Ravenswood, 6 miles; Evanston, 12; Glencoe, 19; Highland Park, 23; Lake Forest, 28; Waukegan, 36; State Line, 45; Kenosha (Kenosha Division connects), 51.

This road is along the western shore of Lake Michigan.

Chicago. (See page 6.)

Waukegan (36 miles), formerly called Littlefort, is a picturesquely-situated and flourishing town, and the capital of Lake County, Illinois. Opposite the city the lake is about 80 miles wide. Waukegan does a large export business in grain, wool, and butter. It has regular steamboat communication with Chicago and other lake-ports.

Kenosha (51 miles), the capital of Kenosha County, is the most southerly lake-port of Wisconsin. It has a good harbor, with piers extending into Lake Michigan. The rich prairie-lands in the neighborhood are highly cultivated, and furnish the place with a good export-trade. Kenosha is the terminus of the *Milwaukee and Kenosha Divisions of the Chicago & Northwestern Railways*.

ROUTE VII.**KENOSHA, WISCONSIN, TO ROCKFORD, ILLINOIS.**

Via Kenosha Division Chicago & Northwestern Railway.

STATIONS.—Kenosha: Fox River, 19 miles; Genoa, 27; Harvard (connects with Wisconsin Division and with Madison Division), 44; Poplar Grove, 56; Caledonia (connects with Branch to Belvidere), 60; Rockford (connects with Galena Division), 72.

Kenosha. (*See page 199.*)

Harvard (44 miles). (*See page 199.*)

Caledonia (60 miles). (*See page 199.*)

Rockford (72 miles). (*See page 198.*)

La Salle (147 miles). (*See page 76.*)

Bloomington (207 miles). (*See page 196.*)

Decatur (257 miles). (*See page 84.*)

Vandalia (313 miles). (*See page 45.*)

The route from Centralia to Cairo is identical with ROUTE I. of ILLINOIS.

ROUTE VIII.**DUNLEITH TO CAIRO**

Via Northern Division Illinois Central Railway.

STATIONS.—Dunleith: Menominee, 8 miles; Galena, 17; Council Hill, 24; Scales Mound, 29; Apple River, 38; Warren (connects with Mineral Point Railway), 44; Nora, 47; Lena, 55; Eleroy, 59; Freeport (connects with Galena Division of Chicago & Northwestern and Western Union Railways), 67; Baileyville, 74; Foreston, 80; Haldane, 85; Polo, 90; Woosung, 96; Dixon (connects with Iowa Division Chicago & Northwestern Railway), 103; Amboy, 115; Sublette, 123; Mendota (connects with Chicago, Burlington & Quincy Railway), 131; Homer, 139; La Salle (connects with Chicago, Rock Island & Pacific Railway), 147; Tonica, 156; Wenona, 167; Minonk, 178; Panola, 186; El Paso (connects with Toledo, Peoria & Warsaw Railway), 189;

Hudson, 198; Normal (connects with Chicago & Alton Railway), 205; Bloomington (connects with Indianapolis, Bloomington & Western Railway), 237; Heyworth, 219; Wapella, 225; Clinton, 229; Maroa, 238; Decatur (connects with Toledo, Wabash & Western Railway), 251; Wheatland, 256; Macon, 261; Moawqua, 266; Assumption, 274; Pana (connects with Indianapolis & St. Louis and Springfield & Illinois Southeastern Railway), 283; Oconee, 290; Ramsey, 300; Vandalia (connects with St. Louis, Vandalia & Terre Haute Railway), 313; Shebonier, 319; Patoka, 327; Sandoval (connects with Ohio & Mississippi Railway), 337; Centralia (connects with Chicago Division), 343; Richview, 353; Ashiey (connects with St. Louis & Southeastern Railway), 356; Tamaroa, 370; Du Quoin (connects with St. Louis, Alton & Terre Haute Railway), 379; De Soto, 392; Carbondale, 398; Makanda, 407; Cobden, 413; Jonesboro', 419; Dongola, 429; Wetaug, 431; Pulaski, 439; Villa Ridge, 443; Mounds, 447; Cairo (connects with ferry to Columbus, the northern terminus of the Mobile & Ohio Railway), 456.

All stations of any importance along this route have already been described. From Dunleith to Freeport is identical with ROUTE IV. of ILLINOIS.

Dixon (103 miles) is described in ROUTE XI. (*See page 72.*)

Mendota (131 miles). (*See page 79.*)

ROUTE IX.**BLOOMINGTON TO ALTON.**

Via Jacksonville Division of Chicago & Alton Railway.

STATIONS.—Bloomington (connects with Main Line of Chicago & Alton Railway): Stamford, 12 miles; Hopedale, 23; Delavan, 31; Mason City, 45; Petersburg, 61; Ashland, 74; Jacksonville (connects with Toledo, Wabash & Western and Peoria, Pekin & Jacksonville Railways), 89; Whitehall (connects with Rockford, Rock Island & St. Louis Railway), 114; Carrollton, 123; Jerseyville, 136; Godfrey, 150; Alton (connects with Indianapolis & St. Louis Railway), 156.

Bloomington. (*See page 196.*)

Jacksonville (89 miles). (*See* page 85.)

Alton (156 miles). (*See* page 162.)

ROUTE X.

PEORIA TO ALTON.

Via Peoria, Pekin & Jacksonville Railway and Jacksonville Division of Chicago & Alton Railway.

STATIONS.—Peoria (connects with Chicago, Rock Island & Pacific, Toledo, Peoria & Warsaw, and Chicago, Burlington & Quincy Railways): Hollis, 8 miles; Pekin (connects with Indianapolis, Bloomington & Western Railway), 10; Hainesville, 19; Manito, 22; Forest City, 27; Topeka, 33; Havana, 41; Bath, 49; Chandlersville, 59; Virginia, 68; Little Indian, 72; Jacksonville (connects with Toledo, Wabash & Western Railway), 83; Alton, 150.

Peoria. (*See* page 81.)

Pekin (10 miles), the capital and largest place of Tazewell County, is on the left bank of Illinois River. It does a large produce-shipping business. The Peoria, Pekin & Jacksonville, and the Indianapolis, Bloomington & Western Railways connect here.

Jacksonville (83 miles). (*See* page 85.)

Alton (150 miles). (*See* page 162.)

ROUTE XI.

PEORIA TO WARSAW.

Via Toledo, Peoria & Warsaw Railway.

STATIONS.—Peoria (connects with Peoria, Pekin & Jacksonville Railway): Canton, 28 miles; Bushnell (connects with Chicago, Burlington & Quincy Railway), 60; La Harpe, 85; Elvaston, 105; Warsaw (connects by ferry to Keokuk with Des Moines Valley Railway), 117.

Peoria. (*See* page 81.)

Bushnell (60 miles). (*See* page 81.)

Warsaw (117 miles). (*See* page 82.)

ROUTE XII.

DANVILLE TO PEORIA.

Via Indianapolis, Bloomington & Western Railway.

STATIONS.—Danville, 85 miles from Indianapolis (connects with Toledo, Wa-

bash & Western Railway): Ogden, 18 miles from Danville; Urbana, 32; Champaign (connects with Chicago Division of Illinois Central Railway), 33; Mahomet, 43; Farmer's City, 57; Leroy, 66; Bloomington (connects with Chicago & Alton Railway and Northern Division of Illinois Central Railway), 81; Danvers, 92; Tremont, 110; Pekin (connects with Peoria, Pekin & Jacksonville Railway), 117; Peoria (connects with Chicago, Burlington & Quincy Railway), 127.

Danville (*see* page 84). The Chicago, Danville & Vincennes Railway, now finished to this place, opens up a new and short route to Chicago.

Urbana is a small village.

Bloomington (81 miles). (*See* page 196.)

Peoria (127 miles). (*See* page 81.)

ROUTE XIII.

STERLING, ILLINOIS, TO ST. LOUIS, MISSOURI.

Via Rockford, Rock Island & St. Louis Railway.

STATIONS.—Sterling (connects with Iowa Division of Chicago & Northwestern Railway): Lyndon, 13 miles; Erie, 22; Rock River Junction, 36; Port Byron Junction (connects with Western Union Railway), 45; Rock Island (connects with Chicago, Rock Island & Pacific Railway), 52; Orion, 70; Rio, 88; Monmouth (connects with Chicago, Burlington & Quincy Railway), 108; Roseville, 121; Bushnell (connects with Chicago, Burlington & Quincy and with Toledo, Peoria & Warsaw Railways), 137; Vermont, 156; Astoria, 163; Beardstown, 180; Arenzville, 190; Chapin (connects with Toledo, Wabash & Western Railway), 199; Winchester, 209; Whitehall (connects with Jacksonville Division of Chicago & Alton Railway), 224; Sheffield, 241; Brighton (connects with Chicago & Alton Railway), 258; Alton Junction (connects with Indianapolis & St. Louis Railway), 270; East St. Louis (connects with railways diverging), 291; St. Louis, 292.

Every place of any importance along this road has already been described.

ROUTE XIV.**SPRINGFIELD TO PANA.**

Via Springfield & Illinois Southeastern Railway.

STATIONS.—Springfield (connects with railways diverging): Clarksville, 10 miles; Taylorville, 27; Pana (connects with Chicago Branch of Illinois Central Railway), 43.

Springfield. (*See page 84.*)

Pana (43 miles). (*See page 59.*)

ROUTE XV.**ST. LOUIS TO MOUNT VERNON.**

Via St. Louis & Southeastern Railway.

STATIONS.—East St. Louis: Birkners, 10 miles; Belleville, 14; Pensenean, 29; Bridgeport, 39; Nashville, 49; Ashley (connects with Illinois Central Railway), 60; Woodlawn, 69; Mount Vernon, 76.

East St. Louis. (*See page 46.*)
Ashley (60 miles) is a prosperous village in Washington County.
Mount Vernon (76 miles) is the capital of Jefferson County.

ROUTE XVI.**ST. LOUIS TO CAIRO.**

Via Belleville & Southern Illinois Division of the St. Louis, Alton & Terre Haute Railway.

STATIONS.—East St. Louis: Bellevue, 14 miles; New Athens, 29; Tilden (connects with stages for Sparta), 42; Pinckneyville, 54; Du Quoin (connects with Illinois Central Railway), 71; Cairo, 146.

East St. Louis. (*See page 46.*)
Du Quoin (71 miles). (*See page 195.*)

Cairo (146 miles). (*See page 172.*)

IOWA.

IOWA was organized as a Territory in 1838, and admitted into the Union in 1846. It originally formed a part of the Louisiana purchase, and subsequently a part of Missouri and Wisconsin. It lies wholly beyond the Mississippi. On this side, its neighbors are Wisconsin and Illinois. On the north is Minnesota; on the west, Minnesota and Nebraska; and upon the south, Missouri. It is 287 miles long from east to west, and 210 miles broad, and embraces an area of thirty-two and a half millions of acres, of which about one-sixth is under cultivation. The State has no very notable history, beyond the usual adventure and hardship of a forest-life among savage tribes. The settlement of the region was commenced at Burlington, in the year 1833. The landscape of Iowa is marked by the features which we have traced in our visit to neighboring portions of the Northwest. The surface is, for the most part, one of undulating prairie, varied with ridges or plateaus, whose extra elevations impel the diverse course of the rivers and streams. The *Coteau des Prairies*

enters the State from Minnesota, and forms its highest ground. On the Mississippi, in the northeast, the landscape assumes a bolder aspect, and pictures of rugged, rocky height and bluff are seen. A few miles above Dubuque, Table Mound will interest the traveller. It is a conical hill, perhaps 500 feet high, flattened at the summit.

It has been estimated that about nine-tenths of the surface of Iowa is prairie. The timber is generally found in heavy bodies skirting the streams, but there are also many isolated groves standing, like islands in the sea, far out on the prairies. The eastern half of the State contains a larger proportion of timber than the western. The following are the leading varieties of timber: white, black, and burr oak, black walnut, butternut, hickory, hard and soft maple, cherry, red and white elm, ash, linn, hackberry, birch, honey locust, cottonwood, and quaking asp. A few sycamore-trees are found in certain localities along the streams, and groves of red cedar, especially along Iowa and Cedar Rivers.

At the time of the organization of the Territory of Wisconsin in 1836, the entire white population of that portion which now constitutes the State of Iowa was 10,531. In 1860 the population of the State was 518,170, and in 1870 it was 1,193,083. The total valuation of real estate and personal property by the late census is given as \$308,099,165, against \$205,166,985 in 1860.

RIVERS.

The rivers of Iowa are divided into two systems or classes—those flowing into the Mississippi, and those flowing into the Missouri. The *Mississippi* washes the entire eastern border of the State, and is most of the year navigable for steamboats of a large class. The only serious obstruction to steamers of the largest size are what are known as the Lower Rapids, just above the mouth of the Des Moines. The Government of the United States is now engaged in the construction of a canal, or channel, around these rapids on the Iowa side of the river, a work which will prove of immense advantage to the commerce of Iowa for all time to come. The principal rivers which flow through the interior of the State, east of the water-shed, are the *Des Moines*, *Skunk*, *Iowa*, *Wapsipiwicon*, *Maquoketa*, *Turkey*, and *Upper Iowa*. One of the largest rivers of the State is *Red Cedar*, which rises in Minnesota, and, flowing in a southeasterly direction, joins its waters with the *Iowa River* in Louisa County, only about thirty miles from its mouth, that portion below the junction retaining the name of Iowa River, although it is really the smaller stream.

The southern portion of the State is drained by several streams that flow into the Missouri River, in the State of Missouri. The most important of these are *Chariton*, *Grand*, *Platte*, *One Hundred and Two*, and the three *Nodaways*—East, West, and Middle. All of these afford water-power for machinery, and present splendid valleys of rich farming-lands.

We have above only mentioned the streams that have been designated as rivers, but there are many other streams of great importance and value to different portions of the State, draining the country, furnishing-mill sites, and adding to the

variety and beauty of the scenery. So admirable is the natural drainage of almost the entire State, that the farmer who has not a stream of living water on his premises is an exception to the general rule.

The rivers in some parts of the State wind through ravines of magnesian limestone, amid which they have gradually worked their way, leaving the rocks in every grotesque form of imagery. The depressions in the ground, called sinks, are curious objects. These singular places, which are numerous, are circular holes, ten and sometimes twenty feet across. They abound more particularly on Turkey River, in the upper part of the State. Near the mouth of this stream there are also to be seen many small mounds, sometimes rows of them, varying in height from four to six feet. Iowa has many mineral products, among which is an abundant supply of lead. Copper and zinc are also freely found, and plenty of coal.

LAKES.

The following are among the most noted of the lakes of Northern Iowa: *Clear Lake*, in Cerro Gordo County; *Rice Lake*, *Silver Lake*, and *Bright's Lake*, in Worth County; *Crystal Lake*, *Eagle Lake*, *Lake Edward*, and *Twin Lakes*, in Hancock County; *Owl Lake*, in Humboldt County; *Lake Gertrude*, *Lake Cornelia*, *Elm Lake*, and *Wall Lake*, in Wright County; *Lake Caro*, in Hamilton County; *Twin Lakes*, in Calhoun County; *Wall Lake*, in Sac County; *Swan Lake*, in Emmet County; *Storm Lake*, in Buena Vista County; and *Okoboji* and *Spirit Lakes*, in Dickinson County. Nearly all of these are deep and clear, abounding in many excellent varieties of fish, which are caught abundantly by the settlers at all proper seasons of the year. The name "Wall Lake," applied to several of these bodies of water, is derived from the fact that a line or ridge of bowlders extends around them, giving them somewhat the appearance of having been walled. Most of them exhibit the same appearance in this respect to a greater or less extent.

Lake Okoboji, *Spirit Lake*, *Storm Lake*, and *Clear Lake*, are the largest of the Northern Iowa lakes. All of them, ex-

cept Storm Lake, have fine bodies of timber on their borders. *Lake Okoboji* is about fifteen miles long, and from a quarter of a mile to two miles wide. *Spirit Lake*, just north of it, embraces about ten square miles, the northern border extending to the Minnesota line. Storm Lake is in size about three miles east and west by two north and south. Clear Lake is about seven miles long by two miles wide. The dry rolling land usually extends up to the borders of the lakes, making them delightful resorts for excursion or fishing parties, and they are now attracting attention as places of resort, on account of the beauty of their natural scenery, as well as the inducements which they afford to hunting and fishing parties.

RAILROADS.

The unprecedented rapidity with which our railroad system is being extended is well shown in some statistics which have been received from Iowa. In the last eight years, no less than two thousand miles have been constructed in that State, of which more than one thousand have been made in the years 1869 and 1870. The railroads of Iowa are 2,682 miles long, and the gross earnings for the past nine years over \$50,000,000.

ROUTE I.

FROM KEOKUK TO MONA.

Via Burlington & Keokuk Division of Chicago, Burlington & Quincy Railway; Burlington, Cedar Rapids & Minnesota Railway, and Iowa Division of Illinois Central Railway.

STATIONS.—*Burlington & Keokuk Division of Chicago, Burlington & Quincy Railway.*—Keokuk (connects with railways diverging): Sandusky, 5 miles; Nashville, 8; Painter Creek, 17; Fort Madison, 24; Weber, 32; Burlington (connects with Burlington & Missouri River and Burlington, Cedar Rapids & Minnesota Railways), 43.

STATIONS.—*Burlington, Cedar Rapids & Minnesota Railway.*—Burlington, 43 miles from Keokuk; Kossuth, 58; Wapello, 73; Columbus Junction (connects with Washington Branch of Chicago, Rock Island & Pacific Railway), 84;

West Liberty (connects with Chicago, Rock Island & Pacific Railway), 105; Morse, 121; Cedar Rapids (connects with Iowa Division Chicago & Northwestern Railway, and with Dubuque Southwestern Railway), 143; Vinton, 168; Hayden, 189; Waterloo (connects with Iowa Division of Illinois Central Railway), 199.

STATIONS.—*Iowa Division of Illinois Central Railway.*—Waterloo, 199 miles from Keokuk; Janesville, 211; Waverley, 217; Plainfield, 226; Nashua, 234; Charles City (connects with Iowa & Dakota Division of Milwaukee & St. Paul Railway), 245; Osage, 262; St. Ansgar, 271; Mona (connects with Austin & Mason City Branch of Iowa Division Milwaukee & St. Paul Railway), 279.

Keokuk. (See page 82.)

Burlington (43 miles). (See page 79.)

Wapello (73 miles), the capital of Louisa County, on the right bank of the *Iowa River*, is a flourishing town of about 1,500 inhabitants.

Columbus (84 miles) connects with the *Washington Branch of the Chicago, Rock Island & Pacific Railway.*

West Liberty (105 miles) connects with the *Chicago, Rock Island & Pacific Railway.* (See page 78.)

Cedar Rapids (143 miles). (See page 73.)

Vinton (168 miles), the capital of Benton County, is a flourishing village of about 2,000 inhabitants, on the Red Cedar River. The State Institution for the Blind is located in this place.

Waterloo (199 miles), the capital of Black Hawk County, is a place of about 1,800 inhabitants, on the Red Cedar River. It connects with the *Iowa Division of the Illinois Central Railway.*

Waverley (217 miles), the capital of Bremer County, is a flourishing village of about 2,500 inhabitants, on the Red Cedar River.

Charles City (245 miles), the capital of Floyd County, is a pretty village on the Cedar River, surrounded by a rich country of rolling prairie. It connects with the *Iowa & Dakota Division of the Milwaukee & St. Paul Railway.*

Mona (279 miles), on the Red Cedar River, connects with the *Austin & Mason*

City Branch of the Iowa Division of the Milwaukee & St. Paul Railway.

ROUTE II.

DUBUQUE TO SIOUX CITY.

Via Iowa Division of Illinois Central Railway.

STATIONS.—Dubuque: Julien, 10 miles; Peosta, 15; Farley (connects with Dubuque Southwestern Railway), 23; Earlville, 37; Manchester, 47; Winthrop, 61; Independence, 69; Jesup, 78; Raymond, 87; Waterloo (Branch to Mona connects), 93; Cedar Falls and Mona Junction, 98; Cedar Falls, 99; New Hartford, 109; Aplington, 123; Ackley (connects with Central Railway of Iowa), 132; Iowa Falls, 143; Williams, 158; Webster City, 172; Fort Dodge (connects with Des Moines Valley Railway), 192; Manson, 210; Marvin, 226; Newell, 235; Storm Lake, 245; Cherokee, 267; Marcus, 283; Le Mars, 302; Sioux City (connects with Sioux City Pacific Railway), 326.

Dubuque. (*See page 161.*)

Farley (23 miles) connects with the *Dubuque Southwestern Railway.*

Manchester (47 miles) is a thriving village of 1,500 inhabitants, on the Maquoketa River.

Waterloo (93 miles). (*See page 204.*)

Cedar Falls (99 miles) is a flourishing manufacturing town of about 4,000 inhabitants, on Cedar River.

Ackley (132 miles) connects with the *Central Railway of Iowa.*

Fort Dodge (192 miles), the capital of Webster County, is a flourishing town of about 2,000 inhabitants, on the Des Moines River, which affords good water-power, and is here about 250 feet wide. The *Des Moines Valley Railway* connects at this point.

Cherokee (267 miles), the capital of Cherokee County, is on the Little Sioux River.

Sioux City (326 miles), on the Missouri River, connects with the *Sioux City Pacific Railway.* (*See page 178.*)

ROUTE III.

DUBUQUE TO CEDAR RAPIDS.

Via Dubuque Southwestern.

STATIONS.—Dubuque: Farley, 23 miles; Sand Springs, 37; Anamosa, 54; Springville, 65; Cedar Rapids (connects with Iowa Division of Chicago & Northwestern Railway and Burlington, Cedar Rapids & Minnesota Railway), 79.

Dubuque. (*See page 161.*)

Cedar Rapids (79 miles). *See page 73.*

ROUTE IV.

DES MOINES TO FORT DODGE.

Via Des Moines Valley Railway.

STATIONS.—Des Moines (connects with Chicago, Rock Island & Pacific Railway): Valley Junction, 8 miles; Dallas Centre, 21; Perry, 34; Grand Junction (connects with Iowa Division of Chicago & Northwestern Railway), 50; Gowrie, 65; Sioux City Junction, 72; Fort Dodge (connects with Iowa Division of Illinois Central Railway), 78.

Des Moines. (*See page 78.*)

Grand Junction (50 miles). *See page 72.*

Sioux City (72 miles). (*See page 178.*)

Fort Dodge (78 miles). (*See page 205.*)

ROUTE V.

WILTON TO ASHLAND.

Via Branch of Chicago, Rock Island & Pacific Railway.

STATIONS.—Wilton (connects with Maine Line): Muscatine, 12 miles; Fredonia, 31; Washington (connects with Stage Lines for Sigourney and Oskaloosa), 49; Fairfield (connects with Burlington & Missouri River Railway), 77; Ashland (connects with Des Moines Valley Railway), 94.

Wilton. (*See page 78.*)

Washington (49 miles) connects with Sigourney and Oskaloosa by stage.

Fairfield (77 miles) is an unimportant village.

Ashland (94 miles). (*See page 82.*)

ROUTE VI.**COUNCIL BLUFFS TO SIOUX CITY.***Via Sioux City & Pacific Railway.*

STATIONS.—Council Bluffs (connects with all diverging railways): Missouri Valley Junction (connects with Chicago & Northwestern Railway), 21 miles; California Junction (Fremont & Sioux City Divisions diverge), 27; River Sioux, 44; Onawa, 59; Sloan, 75; Sioux City (connects with Iowa Division of Illinois Central Railway), 96.

Council Bluffs. (See page 74.)**Missouri Valley Junction** (27 miles). (See page 74.)**Sioux City** (96 miles). (See page 178.)**ROUTE VII.****CALMAR TO ALGONA.***Via Iowa & Dakota Division of Milwaukee & St. Paul Railway.*

STATIONS.—Calmar (connects with Iowa & Minnesota Divisions): Fort Atkinson, 6 miles; New Hampton, 27; Charles City (connects with Iowa Division of Illinois Central Railway), 47; Nora Springs, 65; Mason City (connects with Central Railway of Iowa), 75; Garner, 95; Algona, 126.

Calmar, a village of about 1,000 inhabitants, connects with the *Iowa and Minnesota Divisions*.

Charles City (47 miles). (See page 204.)**Mason City** (75 miles), the capital of Cerro Gordo County, connects with the *Central Railway of Iowa*.**Algona** (126 miles), the capital of Kossuth County, is on the Des Moines River.**ROUTE VIII.****McGREGOR, IOWA, TO AUSTIN, MINNESOTA.***Via Iowa & Minnesota Divisions of Milwaukee & St. Paul Railway.*

STATIONS.—McGregor (connects by Ferry with Prairie du Chien): Postville, 26 miles; Ossian, 37; Calmar (connects with Iowa and Dakota Division), 43 miles; Conover, 46; Cresco, 62; Lime Springs, 73; Le Roy, 85; Austin (connects with Mason City & Minnesota Branch), 111.

McGregor. (See page 160.)**Calmar** (43 miles.) (See page 206.)**Austin, Minn.** (111 miles), the capital of Mower County, is a village of about 1,000 inhabitants, pleasantly situated on Red Cedar River.**MICHIGAN.**

MICHIGAN embraces two peninsulas, the lower or southern lying between Lake Michigan on the west, and Lakes Huron, St. Clair, and Erie on the east; and the northern, between Lake Superior on the north, and Lakes Michigan and Huron on the south. The northern peninsula is about 320 miles long and 130 in its greatest breadth, and the southern 238 miles from north to south, and 200 from east to west. Unitedly, they embrace thirty-five and a half millions of acres. The unique character of the scenery of the upper peninsula of Michigan, and the present easy means of access, promise, in the course of a few years, to make this region one of the

most popular summer resorts in the Union. Excepting in portions of its southern boundary, the State is everywhere surrounded by the waters of the Great Lakes, insomuch that it has a coast of nearly 1,100 miles. Of this immense lake-coast, 350 miles belong to Lake Superior, as much more to Lake Michigan, 300 to Lake Huron, 40 to Lake Erie, and 30 to St. Clair. Besides these grand waters, which encompass the State about like a girdle, there are many beautiful ponds scattered over the interior, and bearing thither the picturesque beauty of the shores. The southern peninsula is more interesting in an agricultural than in a pictorial point of view.

It is in surface notably unvaried—a vast plain, undulating indeed, but not broken by any elevations worthy of mention. It has, however, peculiar features which will interest the traveller, in its prairie-lands, and that special characteristic of the Western landscape—the *Oak Openings*—a species of natural park meagrely covered with trees. The shores, however, even of this part of Michigan, are often picturesquely varied, with steep banks and bluffs, and shifting sand-hills, reaching, sometimes, a height of 200 feet or more. The romantic portion of the “Lake State” is in the upper peninsula, which is rich in all the features of rugged, rocky coast, of the most fantastic and striking character, in beautiful streams, rapids, and cascades.

Lake Michigan, the largest of the great lakes that is wholly included within the United States, is 340 miles in length, from Michigan, Indiana, to the Strait of Mackinaw, and averages about 70 miles in breadth. Its surface is about 600 feet above the level of the sea; the depth is said to be about 900 feet, and its area is estimated to contain 20,000 square miles. The shore of the lake is generally low, being formed of limestone, rock, clay, or sand. The waters are gradually receding from the Michigan shore, and encroaching upon that of Wisconsin. Except a few near the north-easterly extremity of the lake, there are no islands in it. During the summer and early autumn months the waters are comparatively calm and afford safe navigation; but late in the year, and during the winter and early spring, travel on this and the other great lakes is attended with much risk. *Green Bay*, which lies principally within the limits of Wisconsin, is the only one of considerable size on Lake Michigan. (See page 219.) The many remarkable objects of interest to the tourist in the lake-region have been fully described in LAKE AND RIVER TOUR No. I., and in other parts of the book.

The rivers of the State are for the most part small streams, but many of them, particularly those in the mountain districts of the north, are replete with pleasant subjects for the pencil of the artist.

Michigan is well wooded. The north-

ern peninsula furnishes white pine, spruce, hemlock, birch, oak, aspen, maple, ash, and elm; in the south are found the oak-openings already referred to; the northwest of the lower peninsula is well timbered, the varieties embracing those above enumerated and several others; indeed, in all parts of the State, timber is more or less abundant. The lumber-trade is an important branch of the industry of Michigan, and is annually increasing in extent. The reports of the lumber business of the Saginaw Valley and Lake Huron shore, for 1870, show that the whole amount of lumber cut in the two districts during the year, amounted to 704,000,000 feet. More than 4,000 men were engaged in the mills, which number 118. Seventy gang saws and 120 circular saws were employed, besides 70 single saws. The quantity of small lumber manufactured was also very great. The following are some of the larger items: Shingles, 273,000,000; staves, 11,000,000; lath, 61,000,000; pickets, 900,000.

The *mineral resources* of the State, although imperfectly developed, are doubtless very great. In the northern peninsula, the copper-mines, occupying a belt of 120 miles in length by 2 to 6 in width, are probably the richest in the world. Iron of a very superior quality, and in almost inexhaustible quantities, is met with in various parts of Michigan. There is one belt from 6 to 25 miles wide, extending westward for 150 miles into Wisconsin. Among other minerals, there are lead, gypsum, salt, limestone, marl, and coal. Silver is found in connection with copper, yielding, sometimes, from 25 to 50 per cent. of the precious metal. Ore from a vein of silver lately opened on the Amethyst, on the shore of Lake Superior, has been assayed, and yielded at the enormous rate of \$5,293 to the ton. Salt is obtained in great abundance in the Saginaw Valley, where 646,000 barrels of that article were produced in 1870.

The *Magnetic Spring* recently opened on the eastern shore of Lake Michigan is a remarkable discovery, and adds to the list of mineral waters a new kind, said to be more potent than those of Vichy, Kissingen, Congress, Katalysine or Welden. It was reached accidentally, by

men employed in drilling a salt-wall. At the depth of 259 feet, they came to water of extraordinary properties, holding in solution 400 grains of common salt to the gallon of water, besides the bicarbonates of soda, lime, iron, manganese, and magnesium, the chlorides of potassium, calcium, and magnesium, the bromide of magnesium, and traces of silica, alumina, and ammonia. Its magnetic powers are so strong that a pocket-knife left beneath its current for ten minutes will be magnetized to pick up tacks, while its buoyancy, when heated to 90° Fahrenheit, is very remarkable, floating the bather readily. Its medical qualities are represented as being of a very remarkable kind. The place where the spring was found is a lumber-depot, which, with the usual rapid growth of Western villages numbered in May, 1871, nearly 2,000 inhabitants, with five churches, an academy, and an agricultural hall. One of the peculiarities of Spring Lake City is that acres of its area are built out of sawdust, streets graded from two to four feet deep with this material, and the chief hotel is an old saw-mill transformed, with bath-rooms, and nearly every modern appurtenance.

The population of Michigan in 1860 was 749,113. The census returns for 1870 foot up as follows: Number of dwellings in the State, 235,687; number of families, 234,725; number of voters, 268,756; number of inhabitants, 1,184,638. The total valuation of real estate and personal property is given as \$292,908,809, against \$163,553,005 in 1860.

The first settlements in the State were made at Detroit and Mackinaw, toward the close of the seventeenth century. After England had dispossessed the French, there arose among the Indian tribes the famous chieftain Pontiac, who availed himself of the opportunity afforded by the outburst of the Revolution, to attempt the entire-expulsion of the white invaders of his ancestral lands. He planned a general attack upon all the English forts on the lakes, massacred the garrison at Mackinaw, and laid siege, for some months, to Detroit. In 1805, Michigan, which, prior to that date, formed part of the Northwest Territory, was formed into a separate Territory.

From its contiguity to Canada, Michigan was called early into the field in the War of 1812. Detroit was surrendered to the enemy by General Hull, August 15th, the fort at Mackinaw having already been captured. A number of American prisoners of war were butchered by the Indians at Frenchtown on January 22, 1813. The State suffered at this period many trials, until General Harrison at length drove the British into Canada, carrying the war into that country. Detroit was not surrendered to the United States until 1796. Michigan came into the Union as an independent State in the year 1837, and has since rapidly advanced in population, wealth, and production.

ROUTE I.

DETROIT TO GRAND HAVEN.

Via Detroit & Milwaukee Railway.

STATIONS.—Detroit (connects with all diverging railways and steamboat lines): Royal Oak, 13 miles; Pontiac, 26; Davisburgh, 41; Holly (connects with Flint & Père Marquette Railway), 47; Fenton, 50; Owosso (connects with Jackson, Lansing & Saginaw Railway), 78; Ovid, 88; St. John's, 98; Muir, 117; Ionia (connects with Ionia & Lansing Railway), 124; Grand Rapids (connects with Grand Rapids & Indiana, Grand River Valley, and Kalamazoo Division of Michigan Southern Railways), 157; Nunica, 179; Grand Haven (connects with steamers for Milwaukee and with coasting steamers), 189.

Detroit. (See page 3.)

Royal Oak (13 miles) is a thriving village.

Pontiac (26 miles), the capital of Oakland County, is a flourishing city of about 5,000 inhabitants, on Clinton River. It is a place of active business, and one of the principal wool-markets in the State. The Orchard Lake Gravel Road has been completed from Pontiac beyond Orchard Lake, making a fine drive.

Holly (47 miles) is the southern terminus of the *Flint & Père Marquette Railway*.

Owosso, or Owasso (78 miles), is built on both sides of the Shiawassee River, which affords a never-failing water-

power, giving movement to several grist, saw, planing and other mills. It is the most important station on the railroad between Detroit and Grand Rapids. It connects with the *Jackson, Lansing & Saginaw Railway*, whose machine-shops are located at this point. Population in 1870, 2,065.

IONIA (124 miles), the capital of the county of the same name, is on Grand River, about 90 miles from its mouth. The river is navigable as high as the village in all stages of water, and steamers ply regularly between Ionia and the city of Grand Rapids. The *Ionia & Lansing Railway* connects here. Population, about 2,500.

Grand Rapids (157 miles), the capital of Kent County, is picturesquely situated, and handsomely built on both banks of the Grand River, by the rapids. It is an active manufacturing place, having a population of about 5,000. Large steamboats run daily between this place and Grand Haven, where they connect with the lake steamers. Salt and gypsum are found in the neighborhood, and there is abundance of limestone, pine-lumber, and other building-materials. Grand Rapids connects with the *Grand Rapids & Indiana* and *Grand River Valley Railways*, and the *Kalamazoo Division of the Michigan Southern Railway*.

Grand Haven (189 miles), the capital of Ottawa County, is situated on the southern bank of Grand River, at its entrance into Lake Michigan. The river here is 350 yards wide, from 15 to 30 feet deep, forming a splendid harbor—the best on the eastern shore of the lake—having accommodation for 500 vessels. Grand Haven connects by rail with Muskegon, with steamers for Milwaukee, and with coasting steamers.

ROUTE II.

DETROIT TO ADRIAN.

Via Detroit Division of Lake Shore & Michigan Southern Railway.

STATIONS.—Detroit (connects with all diverging railways and steamboat lines): Wyandotte, 17 miles; Trenton, 20; Brownstown, 26; Monroe (branch to Toledo diverges), 40; Deerfield, 60; Adrian (junction with main line), 63.

Detroit. (See page 3.)

Monroe (40 miles), the capital of Monroe County, is a flourishing place, being the principal market for the wheat produced in several adjoining counties, and having extensive manufactories of wool, flour, lumber, and leather. It was settled by the French about 1776, but the present town has been mostly built since 1835. Monroe contains many handsome buildings; its court-house, built of hewn stone, cost \$35,000. The city is situated on both sides of the Raisin River, two miles from its entrance into Lake Erie, with which it connects by a ship-canal. Population in 1870, 5,086.

Adrian (63 miles). (See page 20.)

ROUTE III.

DETROIT TO PORT HURON.

Via Detroit Division Grand Trunk Railway of Canada.

STATIONS.—Detroit (connects with all diverging railways and with lake and river steamers): Mount Clemens, 25 miles; Ridgeway (connects with Michigan Air Line Railway), 41; Port Huron (connects, by ferry to Sarnia, with Grand Trunk and Great Western Railways of Canada), 62.

Detroit. (See page 3.)

Mount Clemens (25 miles) is situated on the left bank of Clinton River, six miles from its entrance into Lake St. Clair, at the head of steam navigation. It is quite a busy little place, among other industries engaging in ship-building. Steamboats ply daily between Mount Clemens and Detroit.

Ridgeway (41 miles) connects with the *Michigan Air Line Railway*.

Port Huron (62 miles). (See page 139.)

ROUTE IV.

DETROIT TO BAY CITY.

Via Detroit & Milwaukee and Flint & Père Marquette Railways.

STATIONS.—*Detroit & Milwaukee Railway*.—Detroit (connects with all diverging railway and steamboat lines): Royal Oak, 13 miles; Pontiac, 26; Davisburg, 41;

Holly (connects with Flint & Père Marquette Railway), 47.

STATIONS.—*Flint & Père Marquette Railway.*—Holly, 47 miles from Detroit; Grand Blanc, 56; Flint, 64; Mount Morris, 70; Pine Run, 75; Birch Run, 81; Bridgeport, 95; East Saginaw (connects with Northern and Western Divisions), 98; Portsmouth, 107; Bay City (connects with steamers for ports on Lake Huron), 111.

The route from Detroit to Holly has been described under ROUTE I. of MICHIGAN.

Flint (64 miles), the capital of Genesee County, is prettily situated on Flint River, which furnishes an extensive water-power, and in the midst of a fertile country. The Michigan Asylum for the Deaf and Dumb and Blind, at this place, is a handsome building. Population in 1870, 5,395.

East Saginaw (98 miles), a town on the right bank of the Saginaw River, has several steam saw-mills.

Portsmouth (107 miles) saws and exports large quantities of pine-lumber.

Bay City (111 miles), the capital of Bay County, is a very prosperous town on the eastern bank of the Saginaw River, doing a large pine-lumber shipping-trade. Population in 1860, 1,583; in 1870, 6,984.

Shore & Michigan Southern Railway), 141; Reading, 152, Fremont, 166; Angola, 174; Waterloo (connects with Main Line Lake Shore & Michigan Southern Railway), 188; Stiner's, 204; Fort Wayne (connects with diverging railways), 216.

East Saginaw (13 miles). (See page 210.)

Saginaw City (15 miles), the capital of Saginaw County, does a large export business in salt and lumber. It is on the left bank of the river of the same name, 22 miles from its mouth. The town is picturesquely situated, commanding a fine view of the stream. The *Saginaw River* is navigable for vessels drawing ten feet of water. Its branches unite four miles above the town, converging toward it from all the cardinal points. Population in 1870, 11,350.

Owosso (51 miles). (See page 208.)

Jackson (116 miles). (See page 5.)

Jonesville (141 miles). (See page 21.)

Waterloo (188 miles) is a village on Portage Creek, of about 2,000 inhabitants.

Fort Wayne (216 miles). (See page 24.)

ROUTE V.

WENONA, MICH., TO FORT WAYNE, INDIANA.

Via Jackson, Lansing & Saginaw, and Fort Wayne, Jackson & Saginaw Railways.

STATIONS.—*Jackson, Lansing & Saginaw Railway.*—Wenona: East Saginaw, 13 miles; Saginaw City (connects with Flint & Père Marquette Railway), 15; St. Charles, 29; Oakley, 40; Owosso (connects with Detroit & Milwaukee Railway), 51; Laingsburg, 63; Lansing (connects with Ionia & Lansing and Peninsular Railways), 79; Mason, 91; Rives Junction (connects with Grand River Valley Railway), 105; Jackson (connects with diverging railways), 116.

STATIONS.—*Fort Wayne, Jackson & Saginaw Railway.*—Jackson, 116 miles from Wenona; Hanover, 130; Jonesville (connects with Adrian Division Lake

ROUTE VI.

LANSING TO GREENVILLE.

Via Ionia & Lansing Railway.

STATIONS.—Lansing (connects Jackson, Lansing & Saginaw, Fort Wayne, Jackson & Saginaw, and Peninsular Railways): North Lansing, 1 mile; Delta, 8; Daniells, 10; Grand Ledge, 13; Eagle, 17; Danby, 21; Portland, 24; Stebbinsville, 28; Lyons, 32; Ionia (connects with Detroit & Milwaukee Railway), 37; Orleans, 46; Greenville, 57.

Lansing, the capital of Michigan, is on *Grand River*, which affords good water-power to several flouring-mills and factories. The *State-house*, which is 50 feet above the level of the river, is a large and handsome building. Population about 6,000. (See also STATIONS above.)

Ionia (37 miles). (See page 209.)

ROUTE VII.**LANSING TO BATTLE CREEK AND CLIMAX.***Via Peninsular Railway.*

STATIONS.—Lansing (connects with diverging railways): Charlotte (connects with Grand River Valley Division of Michigan Central Railway), 19 miles; Bellevue, 32; Battle Creek (connects with Main Line of Michigan Central Railway, 45; Climax, 55.

Lansing. (See page 210.)

Charlotte (19 miles), the capital of Eaton County, connects with the *Grand River Valley Division of Michigan Central Railway.*

Battle Creek (45 miles). (See page 6.)

Climax (55 miles) is a township of Kalamazoo County.

ROUTE VIII.**JACKSON TO WHITEHALL.***Via Grand River Valley Division of Michigan Central Railway.*

STATIONS.—Jackson (connects with railways diverging): Rives Junction (connects with Jackson, Lansing & Saginaw Railway), 11 miles; Onondaga, 18; Eaton Rapids, 24; Charlotte (connects with Peninsular Railway), 35; Vermontville, 46; Nashville, 50; Hastings, 62; Middleville, 74; Gaines, 85; Grand Rapids (connects with Detroit & Milwaukee, Grand Rapids & Indiana, and Kalamazoo Division of Lake Shore & Michigan Southern Railways), 94; Nunica, 117; Muskegon, 133; Whitehall, 149.

Jackson. (See page 5.)

Charlotte (35 miles). (See page 211.)

Middleville (74 miles) is a village on Thornapple River.

Grand Rapids (94 miles). (See page 209.)

Muskegon (133 miles), the capital of Muskegon County, is on a river of the same name, five miles from Lake Michigan. Population in 1870, 6,092.

Whitehall (149 miles) is the present terminus of the road.

ROUTE IX.**PARIS, MICH., TO FORT WAYNE, IND.***Via Grand Rapids & Indiana Railway.*

STATIONS.—Paris: Big Rapids, 4 miles; Morley, 20; Howard City, 27; Cedar Springs, 40; Rockford, 47; Grand Rapids (connects with Detroit & Milwaukee Railway, Grand River Valley Division of Michigan Central, and Kalamazoo Division of Lake Shore & Michigan Southern Railway), 60; Bradley, 85; Kalamazoo (connects with Main Line and South Haven Division of Michigan Central Railway), 109; Mendon, 130; Sturgis, 145; Kendallville, 174; Fort Wayne (connects with railways diverging), 202.

Paris is a village four miles above Big Rapids, which is on the Muskegon River.

Grand Rapids (60 miles). (See page 209.)

Kalamazoo (109 miles). (See page 6.)

Kendallville (174 miles). (See page 22.)

Fort Wayne (202 miles). (See page 24.)

ROUTE X.**WHITE PIGEON TO GRAND RAPIDS.***Via Kalamazoo Division of Lake Shore & Michigan Southern Railway.*

STATIONS.—White Pigeon (connects with Main Line): Constantine, 4 miles; Three Rivers, 14; Schoolcraft, 24; Kalamazoo (connects with Main Line and South Haven Division of Michigan Southern Railway, and with Grand Rapids & Indiana Railway), 38; Silver Creek, 47; Allegan (connects with Michigan Lake Shore Railway), 63; Dorr, 78; Grand Rapids (connects with railways diverging), 96.

White Pigeon. (See page 21.)

Kalamazoo (38 miles). (See page 6.)

Allegan (63 miles), the capital of the county of the same name, is situated on both sides of the Kalamazoo River, at the head of navigation for small boats. It has an active trade, lumber being the chief article of export. The river is crossed by a bridge at this point.

Grand Rapids (96 miles). (See page 209.)

ROUTE XI.

ALLEGAN TO MUSKEGON.

Via Michigan Lake Shore Railway.

STATIONS.—Allegan (connects with Kalamazoo Division of Lake Shore & Michigan Southern Railway); Rabbit River, 13 miles; Holland, 23; Grand Haven (connects with Detroit & Milwaukee Railway), 43; Muskegon, 57.

Allegan. (See page 211.)

Grand Haven (43 miles). (See page 209.)

Muskegon (57 miles). (See page 211.)

ROUTE XII.

KALAMAZOO TO SOUTH HAVEN.

Via South Haven Branch of Michigan Central Railway.

STATIONS.—Kalamazoo (connects with Main Line and with Kalamazoo Division of Lake Shore & Michigan Southern Railway, and Grand Rapids & Indiana Railway); Kendall's, 15 miles; Bloomingtondale, 23; Geneva, 32; South Haven.

Kalamazoo. (See page 6.)

South Haven is a village on Lake Michigan, at the mouth of Black River.

ROUTE XIII.

TOLEDO, OHIO, TO JACKSON, MICH.

Via Adrian and Jackson Divisions of Lake Shore & Michigan Southern Railway.

STATIONS.—Toledo (connects with diverging railways); Sylvania, 10 miles; Palmyra, 27; Adrian (connects with Detroit and Jackson Divisions), 33; Te-

cumseh, 46; Norvell, 65; Jackson (connects with diverging railways), 79.

The route from Toledo to Adrian has been described in THROUGH ROUTE, No. II.

Jackson (79 miles). (See page 5.)

ROUTE XIV.

DETROIT TO ROMEO.

Via Detroit Division of Grand Trunk Railway of Canada, and Michigan Air Line Railway.

STATIONS.—Detroit: Mount Clemens, 25 miles; Ridgeway, 41; Armada, 49; Romeo, 57.

The route from Detroit to Ridgeway is described in ROUTE III. of MICHIGAN.

Romeo (57 miles) is a thriving village, of about 2,000 inhabitants.

ROUTE XV.

NEW BUFFALO TO BREEDSVILLE.

Via Chicago & Michigan Lake Shore Railway.

STATIONS.—New Buffalo: Morris, 16 miles; St. Joseph, 27; Breedsville (connects with South Haven Division of Michigan Central Railway), 57.

New Buffalo. (See page 6.)

St. Joseph (27 miles) connects with the *South Haven Division of Michigan Central Railway*. It is on Lake Michigan, at the mouth of St. Joseph's River, which is crossed at this place by a bridge costing \$15,000. St. Joseph has an active trade in lumber and fruit, of which it ships large quantities to Chicago.

Breedsville (57 miles) is a village in Van Buren County.

WISCONSIN.

WISCONSIN was formed into a Territory in 1836, and came into the Union as late as 1848, though the country was visited, as was all the wilderness of which it was then a part, by the French missionaries two centuries ago. It is bounded on the north by Minnesota, part of Michigan,

and Lake Superior; on the east by Lake Michigan; on the south by Illinois, and on the west by Iowa and Minnesota. It is 285 miles long and 250 broad, and embraces an area of 53,924 square miles, or thirty-four and a half millions of acres.

The topographical aspect of Wisconsin

is very similar to that of other portions of the Northwest section of the Union, presenting, for the most part, grand stretches of elevated prairie-land, sometimes 1,000 feet higher than the level of the sea. Though there are no mountains in this State, there are the characteristic plateau ridges of the latitude, formed by depressions, which drain the waters, and afford beds for the rivers and lakes. The descent of the land toward Lake Superior is very sudden, and the streams are full of falls and rapids.

The *Blue Mounds* are in Dane County. The most elevated rises nearly 1,200 feet above the waters of the Wisconsin River.

The forest scenery, and the ever-welcome oak openings—the oases of the prairie—will be among the gratifications of the Nature-loving tourist in Wisconsin. The hunter may indulge his passion for the chase at will, whether he aspire to the wild-game of the wilderness, or to the gentler sports by the brook-side.

Wisconsin is rich in *minerals*, especially in that of iron, which in the Lake Superior region and in other parts is found in great abundance, and of the richest kind. Lead of excellent quality, intermingled with copper and zinc, and some silver, is very plentiful in the southwest part of the State. Copper, magnetic iron, iron pyrites, and plumbago, exist in large quantities. On the Michigamig and Menomonee Rivers beautiful marbles are found. The prevailing color is a light pink, traversed by seams of deep red; but some are blue and dark-colored, handsomely veined, these latter being susceptible of a very fine polish.

There is no lack of *timber* in the State. On the Upper Wisconsin, the Wolf River, and the tributaries of the Mississippi, north of the Wisconsin, there are dense forests of pine. The other forest-trees are spruce, tamarac, cedar, various kinds of oak, birch, aspen, basswood, hickory, elm, ash, hemlock, poplar, sycamore, and sugar-maple. We have already spoken of the oak openings.

The *climate* is rather severe in winter, but it is generally salubrious and bracing.

The State is divided into 58 counties, and contained a population in 1860 of

775,881, of whom 1,171 were negroes, and 1,014 Indians. The entire population of the State is given in the census of 1870 as 1,055,167. The real estate and personal property returns for 1870 are \$333,447,566, against \$156,226,169 in 1860. The increase in the manufacturing industry of Wisconsin during the last decade is very great, the number of establishments in 1860 being 3,063, with 15,414 hands employed, and products valued at \$27,849,467; while in 1870 there are reported 7,136 establishments, with 30,055 hands and products valued at \$85,625,966, showing an increase in establishments of 4,072, of hands of 23,641, and of products of \$57,775,499.

LAKES, RIVERS, ETC.

The waters of *Lake Superior* and *Lake Michigan* wash the northern and eastern boundaries of Wisconsin, and numberless lesser waters are scattered through the interior, and more abundantly over the northwestern counties. The shores of these lakes abound in rich forest growth and in rocky precipice, affording numerous picturesque views. The waters are clear, and full of delicious fish.

Lake Winnebago, the largest of the interior waters of Wisconsin, lies southeast of the middle of the State. Its length is about 28 miles, with a width of 10 miles. The Fox or *Neenah River* unites with Green Bay, an arm of Lake Michigan. A singular rocky wall which might, in its regular formation, easily be supposed the work of art, instead of Nature, follows the eastern shore of Winnebago Lake for 15 miles. This wall rises through all its extent about five feet above the surface of the water, and sinks in places hundreds of feet below. Steamboats navigate the lake. (See Oshkosh, page 219.)

The Mississippi River forms much of the western boundary of Wisconsin, separating it from Iowa and Minnesota, with which States it thus shares the charming scenery of this portion of the great river. (See LAKE and RIVER TOUR No. II.)

The Wisconsin River, the largest stream in the State, rises in a small lake called *Vieux Desert*, on the northern boundary, and flows south-

westerly 600 miles to the Mississippi at Prairie du Chien. Shifting sand-bars obstruct the navigation very much, yet steamboats ascend as high as Portage City, 200 miles distant, by the windings of the river. At Portage City a ship-canal conducts small steamers to the waters of the Neenah or Fox River (the outlet of Lake Winnebago), by which the navigation is continued through the State, from the Mississippi to Lake Michigan.

The Wisconsin River presents many beautiful pictures to the eye of the traveler. The remarkable passage called the *Grandfather Bull Falls*, where the waters break through a bold gorge a mile and a half in length, and flanked on either hand with rugged walls 150 feet in height, is well worth visiting. Some fine chalybeate springs add to the attractions of this charming spot, and promise to make it before long a favorite summer resort.

Petenwell Peak, on the Wisconsin, 60 miles below Grandfather Bull Falls, is a singular oval massive rock, 900 feet in length and 300 wide, with an elevation above the surrounding country of 200 feet. The summit for 70 feet is perpendicular, and the rocks in their fantastic groupings assume the most wonderful architectural appearances, almost persuading the voyager that he is transported back to feudal ages, and is passing through a barbaric land of castled and battlemented heights.

Fortification Rock is another interesting point, a few miles below Petenwell Peak. The cliffs here have a vertical elevation of 100 feet. At the *Dalles of the Wisconsin* the water passes for about six miles between hills of solid rock, in height from 30 to 100 feet. The smallest width of the river here is 55 feet.

The St. Louis River, which forms part of the boundary between Minnesota and Wisconsin, is the original source of the St. Lawrence, and is remarkable for a series of bold rapids, called the Falls of St. Louis. (See LAKE AND RIVER TOUR No. I.)

The antiquary, no less than the lover of natural beauty, may find in this State sources of pleasure, in objects scarcely less strange than the mystical relics of

the Old World. Scattered everywhere over the plains of Wisconsin, are singular structures of earth, known generally as "Mounds." At Prairieville, there is one of these weird works, 56 feet in length, which has the resemblance of a turtle; near the Blue Mounds is another, 120 feet in length, representing a man in a recumbent attitude; near Cassville yet another of these eccentric labors has been found, made in the image of the extinct mastodon. At Aztalan, in Jefferson County, there is an old fortification 550 yards in length, and 275 wide. The walls are from 4 to 5 feet high, and more than 20 feet thick.

ROUTE I.

CHICAGO, ILL., TO MILWAUKEE.

Via Milwaukee Division Chicago & Northwestern Railway

STATIONS. — Chicago: Ravenswood, 6 miles from Chicago; Evanston, 12; Glen-coe, 19; Highland Park, 23; Lake Forest, 28; Waukegan, 36; State Line, 45; Kenosha (connects with Kenosha Division), 51; Racine Junction, 60; Racine (connects with Western Union Railway), 62; County Line, 70; Oak Creek, 75; Milwaukee (connects with Milwaukee & St. Paul Railway), 85.

As far as Kenosha this road has been described as ROUTE VI. of ILLINOIS. (See page 199.)

Racine (62 miles), the capital of the county of the same name, the second city of the State in population and commerce, is beautifully situated at the mouth of *Root River*, on the western shore of Lake Michigan, on a plain about 40 feet above the surface of the waters. It has one of the best harbors on the lake. The city is handsomely laid out in wide and well-built streets, on which are numerous fine public buildings, large warehouses, manufactories, and retail stores. *Racine College*, founded by the Episcopal Church, is one of the most prominent educational institutes of the West. The city has also a large high-school brick building, and several commodious school-houses, three of which are of brick. The railway-car and machine-shops at Racine give employment to a large number of persons. The *Western Union Railway* connects at this

point. Racine was settled in 1835; incorporated as a city in 1848. Population in 1860, 7,822; in 1870, about 15,000.

Milwaukee (85 miles), the commercial capital of Wisconsin, and, next to Chicago, the largest city in the Northwest, is pleasantly situated on the west shore of Lake Michigan, at the mouth of the Milwaukee River. This river flows through the town, and with the Menomonee, with which it forms a junction, divides it into three nearly equal districts, which are severally known as the East, West, and South Divisions. The town lies upon the river-flats, and upon the bluffs which overlook the lake. The *Milwaukee River* is navigable for the largest class of lake-vessels for two miles from its mouth, and forms one of the best harbors on the entire northwestern lake coast. Nearly half a million dollars have been expended in its protection and improvement. The peculiar color of the "Milwaukee brick," of which many of the buildings are made, gives the city a very unique and pretty appearance, and has earned for it the name of the "Cream City" of the lakes. Four steam brick-mills are in constant operation. In growth, this city of promise has kept pace with the rapid progress characteristic of the region. It was settled in 1835, incorporated in 1846, had a population in 1840 of 1,751; in 1850, of 20,061; in 1860, 45,246. Its population in 1870 was 71,499. There are about 60 church buildings of various denominations here, and numerous excellent literary institutions and schools. One of the most prominent church edifices is the *Catholic Cathedral of St. John*. The new Baptist church, also a handsome structure, was built at a cost of \$35,000. The city, which embraces an area of 17 miles square, is divided into nine wards, and contains about 160 streets, and upward of 14,000 dwellings, over 2,000 of which have been erected since 1865. It is well lighted and paved. East Water and Spring Streets are very wide, handsome thoroughfares.

Among the principal hotels may be mentioned the *Plankinton House*, well kept by W. H. Cottrell, the *Newhall House*, the *Walker House*, and the *Junean House*, the two latter in Water Street, convenient to the business portion of the city.

Among the prominent public buildings are the *United States Custom-House*, which also embraces the Post-Office and United States courts. It is of Athens stone, and stands on the corner of Wisconsin and Milwaukee Streets. There are several banking-houses, some of which are fine buildings. The *Music Hall* is a handsome apartment, with sittings for 2,300 persons. It was erected in 1864, at a cost of \$65,000, and is owned by the German Musical Society. The theatre building known as the *Academy of Music* has 800 sittings. Besides these places of public resort, the city contains 15 halls and public assembly-rooms.

The Germans constitute nearly one-half of the entire population, and their influence upon the social life of the inhabitants is everywhere seen. Breweries and lager-bier saloons, gardens, gasthausen, music-halls, and restaurants, abound. There are several large distilleries and breweries. The consumption of lager, for which Milwaukee is now so famous throughout the whole West, is estimated at upward of 1,000,000 gallons annually. Twenty-five firms are engaged in its manufacture, and the aggregate annual product is 2,600,000 gallons.

The Milwaukee river has been dammed, and affords fine manufacturing facilities. Among the more prominent industrial establishments are the flouring-mills. That of Betschey & Kern, built at a cost of \$150,000, has a capacity for making 1,000 barrels of flour daily, and is well worth visiting, as is also the grain-elevator of the *Milwaukee & St. Paul Railway*. This immense structure has a storage capacity of 1,500,000 bushels of wheat, and is one of the largest on the continent. Upward of 13,250,000 bushels of wheat, largely the product of the State, were exported either in bulk or in flour in 1865. The total storage capacity of the grain-elevators is estimated at 5,000,000 bushels. One of the largest rolling-mills in the West, that constructed by E. B. Ward, at a cost of \$300,000, is in this city.

Milwaukee of late years has become a great railway centre. It connects with the *La Crosse*, the *Sun Prairie & Madison*, the *Prairie du Chien*, and the *Northern Divisions* of the *Milwaukee & St. Paul Railway*, which embraces some

of the principal railway lines in Wisconsin, Minnesota, and Northern Iowa, viz.:

	MILES.
Milwaukee to La Crosse.....	196
Milwaukee to Prairie du Chien.....	193
Milwaukee to Portage.....	95
North McGregor to St. Paul.....	212
Horicon to Berlin and Winneconne.....	58
Watertown to Madison.....	26
Milton to Monroe.....	42
Calmar to Algona.....	126
Other Branches.....	59
Total.....	1,018

Milwaukee connects by daily lines of lake steamers with the west side ports, the Lower Lakes, east side ports, Detroit & Milwaukee Railway, and Chicago.

ROUTE II.

MILWAUKEE TO PRAIRIE DU CHIEN.

Via Prairie Du Chien Division of Milwaukee & St. Paul Railway.

STATIONS.—Milwaukee (connects with lake steamers and with diverging railways): Brookfield Junction (connects with La Crosse Division), 14 miles; Waukesha, 20; Eagle, 36; Palmyra, 42; Whitewater, 50; Milton, 62; Milton Junction (connects with Wisconsin Division of Chicago & Northwestern Railway), 63; Edgerton, 70; Stoughton, 80; Madison (connects with Madison Division of Chicago & Northwestern Railway and with Sun Prairie & Madison Branch), 95; Mazomaine, 118; Spring Green, 132; Avoca, 145; Muscoda, 151; Boscobel, 165; Prairie du Chien (connects by ferry with Wisconsin Division at North McGregor and with river steamers), 193.

Milwaukee. (See page 215.)

Brookfield Junction (14 miles) connects with *La Crosse Division* of the *Milwaukee & St. Paul Railway*.

Waukesha (20 miles), formerly Prairieville, the capital of Waukesha County, is on the Pishtaka, or Fox River, situated on the edge of a beautiful prairie. The court-house and jail are built of a superior quality of limestone, found in abundance in the immediate neighborhood. Population, about 3,000.

Whitewater (50 miles), situated in the midst of a rich farming country, is a thriving village. It manufactures

cultivators, ploughs, chairs, stoves, etc. Population, about 3,000.

Milton Junction (63 miles) connects with the *Wisconsin Division* of the *Chicago & Northwestern Railway*.

Madison (95 miles), the capital of the State, and of Dane County, is one of the most beautiful and attractive towns in the Northwest. It is situated in the centre of a broad valley, enclosed by high grounds, occupying an isthmus between the Third and Fourth (Mendota) Lake. Mendota or Fourth Lake, upon the upper side of the city, is about six miles by four miles in area. The Third Lake is somewhat smaller; both are exceedingly picturesque waters, deep enough for steamboat navigation. The city lies in the very heart of the "Four Lake Country," which may be regarded as the Westmereland of the New World. The lakes are severally known as *Mendota*, *Monona*, *Waubesa*, *Yahara*, and *Peshugo*. Except a log-cabin, there was not a single structure upon the site of Madison, when it was selected in 1836 for the capital of the State; yet in 1860 the population reached 9,068, and at present it is about 16,000. The streets of this beautiful city drop down pleasantly toward the shores of the surrounding lakes. Madison perhaps combines and overlooks more charming and diversified scenery than any other town in the West, or than any other State capital in the Union. Its high lakes, fresh groves, rippling rivulets, shady dales, and flowery meadow lawns, are commingled in greater profusion, and disposed in more picturesque order, than we have ever elsewhere beheld. The *Capitol* cost \$150,000 to build. It is a limestone edifice, situated in the centre of a public park of 14 acres, 70 feet above the level of the lakes. This site, being the highest land between Lakes Mendota and Monona, commands some fine views. The *University of Wisconsin*, founded in 1849, occupies an eminence (College Hill) a mile west of the capitol, and 125 feet above the lakes. The *State Historical Society* and the *State Lunatic Asylum* are located here. The *Court-House* and *Jail* occupy the southern corner of the public square.

Madison connects with the *Madison Division* of the *Chicago & Northwestern*

Railway, and with the *Sun Prairie & Madison Branch*.

Boscobel (165 miles) is a thriving village on the left bank of the Wisconsin River.

Prairie du Chien (193 miles). (See page 160.)

ROUTE III.

MILWAUKEE TO LA CROSSE AND HUDSON.

Via La Crosse Division of Milwaukee & St. Paul Railway and the West Wisconsin Railway.

STATIONS.—Milwaukee (connects with lake steamers and railways diverging): Elm Grove, 9 miles; Brookfield (junction with Prairie du Chien Division), 13; Pewaukee, 19; Hartland, 23; Nashotah, 26; Oconomowoc, 31; Ixonia, 37; Watertown, 43; Watertown Junction (crossing of the Wisconsin Division of the Chicago & Northwestern Railway), 44; Richwood, 49; Lowell, 54; Elba, 59; Columbus, 63; Fall River, 67; Otsego, 73; Rio, 77; Wycena, 82; Portage City (junction of the Northern Division), 91; Lewiston, 100; Kilbourn City, 105; Lyndon, 112; Lemonweir, 124; Mauston, 127; Lisbon, 132; Orange, 138; Le Roy, 147; Tomah (connects with the West Wisconsin Division), 153; Greenfield, 156; Lafayette, 163; Sparta, 170; Herseyville, 174; Bangor, 180; West Salem, 184; La Crosse (connects with Southern Minnesota Railway, and with steamers on the river), 195.

STATIONS.—*West Wisconsin Railway.*—Tomah, 153 miles; Black River Falls, 185; Wright's, 194; Augusta, 219; Eau Claire, 241; Menomonee, 264; Hudson, 309; St. Paul, Minn., 328.

Brookfield (13 miles) connects with the *Prairie du Chien Division*.

Watertown (43 miles) is on the Wisconsin River. It connects with the *Wisconsin Division of the Chicago & Northwestern Railway*.

Columbus (63 miles) is a village of about 2,000 inhabitants, on the Crawfish River.

Portage City (91 miles), the capital of Columbia County, occupies the site of old Fort Washington, on the ship-canal connecting the Wisconsin and

Fox Rivers at the noted Winnebago Portage. It is at the head of navigation on the Wisconsin River, and is a depot for pine-lumber. The city contains several good-sized and handsome edifices, among which are a brick high-school building, and a large and well-built brick court-house, and a good hotel. The Railway Company has a round-house and machine-shops here. Population, about 5,000.

Tomah (153 miles), a growing village, connects with the *West Wisconsin*.

Sparta (170 miles), the capital of Monroe County, is situated on the La Crosse River, in a very fertile valley.

La Crosse (195 m.). (See p. 160.)

Eau Claire (241 miles), the capital of Eau Claire County, is a township of about 2,000 inhabitants, on the Chipewewa River.

Menomonee (264 miles) is a village situated on Green Bay, at the mouth of the Menomonee River.

Hudson (309 miles) is a flourishing village of 2,000 inhabitants, on the eastern shore of Lake St. Croix. The *West Wisconsin Railway* now extends to St. Paul.

ROUTE IV.

MILWAUKEE TO MADISON.

Via Sun Prairie & Madison Line of Milwaukee & St. Paul Railway.

STATIONS.—Milwaukee (connects with lake steamers and divergent railways): Watertown Junction (connects with La Crosse Division), 44 miles; Hubbellton, 53; Waterloo, 58; Marshall, 61; Sun Prairie, 69; Madison (connects with Prairie du Chien Division, and with Chicago & Northwestern Railway), 82.

Milwaukee. (See page 215.)

Watertown (44 miles). (See page 217.)

Sun Prairie (69 miles) is a small but growing village.

Madison (82 miles). (See page 216.)

ROUTE V.

MILWAUKEE TO PORTAGE CITY.

Via Northern Division of Milwaukee & St. Paul Railway.

STATIONS.—Milwaukee (connects with lake steamers and divergent railways):

Schwartzburg (connects with Milwaukee Northern Railway), 7 miles; Granville, 13; Germantown, 18; Richfield, 23; Ackerville, 28; Schleisingerville, 30; Hartford, 35; Rubicon, 39; Woodland, 43; Iron Ridge, 45; Horicon Junction, 52; Minnesota Junction (crossing of Wisconsin Division of Chicago & Northwestern Railway), 55; Rolling Prairie, 56; Beaver Dam, 61; Fox Lake Junction, 67; Randolph, 72; Cambria, 78; Pardeeville, 87; Portage City (junction with La Crosse Division), 96.

Milwaukee. (See page 215.)

Schwartzburg (13 miles), on West Branch of Rouge River, connects with the *Milwaukee Northern Railway*.

Germantown (18 miles) is a village on the Wisconsin River.

Horicon (52 miles), a flourishing village of about 2,000 inhabitants, on Rock River, connects with the Berlin Branch.

Minnesota (55 miles) is at the junction of *Wisconsin Division* of the *Chicago & Northwestern Railway*.

Portage City (96 miles). (See page 217.)

ROUTE VI.

MILWAUKEE TO BERLIN AND WINNECONNE.

Via Northern Division Milwaukee & St. Paul Railway.

STATIONS.—*Milwaukee* (connects with lake steamers and divergent railways): Schwartzburg (connects with Milwaukee Northern Railway), 7 miles; Granville, 13; Germantown, 18; Richfield, 23; Ackerville, 28; Schleisingerville, 30; Hartford, 35; Rubicon, 39; Woodland, 43; Iron Ridge, 45; Horicon Junction (branch to Portage City diverges), 52; Burnett (connects with Wisconsin Division of Chicago & Northwestern Railway), 57; Waupun, 66; Brandon, 74; Ripon, 81; Rush Lake (Winneconne Branch connects), 88; Berlin, 94.

STATIONS.—*Winneconne Branch.*—Rush Lake, 88 miles from Milwaukee (connects with Northern Division); Waukau, 92; Omro, 97; Winneconne, 102.

From Milwaukee to Horicon Junction has been described in ROUTE V. of WISCONSIN.

Burnett (57 miles) connects with the *Wisconsin Division* of the *Chicago & Northwestern Railway*.

Rush Lake (88 miles) connects with the *Winneconne Branch*.

Winneconne (102 miles) is a village of about 2,000 inhabitants, on Fox River at the mouth of Wolf River.

ROUTE VII.

CHICAGO, ILL., TO MARQUETTE, MICH.

Via Wisconsin Division Chicago & Northwestern Railway; by Steamer up Green Bay, and Peninsular Division Chicago & Northwestern Railway.

STATIONS ON WISCONSIN DIVISION.—Chicago (connects with railways diverging): Canfield, 12 miles; Des Plaines, 17; Palatine, 26; Barrington, 32; Crystal Lake, 43; Woodstock, 51; Harvard Junction (connects with Madison & Kenosha Divisions), 63; Clinton Junction (connects with Western Union Railway), 78; Shopiere, 82; Janesville (connects with Southern Wisconsin Division of St. Paul & Milwaukee Railway), 91; Milton Junction (connects with Prairie du Chien Division of St. Paul & Milwaukee Railway), 99; Fort Atkinson, 111; Jefferson, 117; Johnson's Creek, 122; Watertown (connects with La Crosse Division of St. Paul & Milwaukee Railway), 130; Juneau, 145; Minnesota Junction (connects with Northern Division of St. Paul & Milwaukee Railway), 148; Burnett, 152; Chester, 160; Oakfield, 168; Fond du Lac (connects with Sheboygan & Fond du Lac Railway), 177; Oshkosh (connects with steamers on Wolf River), 193; Neenah, 207; Appleton (connects with steamers on Fox River), 213; Little Chute, 218; Kaukauna, 221; Wrightstown, 226; De Pere, 236; Fort Howard (connects with steamers on Green Bay), 242; Green Bay, 243.

STATIONS ON PENINSULAR DIVISION.—Escanaba, 343 miles from Chicago; Day's River, 356; Centreville, 373; Little Lake, 385; Negaunee, 405; Marquette, 418.

As far as Harvard Junction this road has been described as ROUTE V. of ILLINOIS. (See page 199.)

Clinton (78 miles) is at the junction of the *Western Union Railway*.

Janesville (91 miles). (See STATIONS on *Wisconsin Division*.)

Milton (99 miles). (See page 216.)

Watertown (130 miles). (See page 217.)

Minnesota (148 miles). (See page 218.)

Fond du Lac (177 miles), at the south end or head of Winnebago Lake, 177 miles north of Chicago and 65 miles south of Fort Howard, is a place much resorted to by travellers in the Northwest. It is on the direct route to Green Bay and the copper region of Lake Superior. (See LAKE AND RIVER TOUR, No. I.) Fond du Lac is remarkable, among other things, for its Artesian wells, which are so numerous that nearly every household has its own. They vary in depth from 90 to 130 feet. The lumber business is extensively carried on. Population, about 15,000. Communication between Winnebago Lake and Green Bay is effected by steamboats on Fox River. (For description of Winnebago Lake, see page 213.) Fond du Lac connects with Milwaukee by the *Air Line Railway*.

Oshkosh, Wis. (193 miles), lies pleasantly on the west side of Lake Winnebago, near the mouth of Fox River. It is a very flourishing place, already numbering over 12,000 inhabitants, and is much resorted to during the summer months. Immediately above the town the Fox River widens out into the *Lake Butte des Morts*. Oshkosh is the entrance to the great pine-region of Wisconsin. A visit to the saw-mills will repay the traveller. More than 50,000,000 feet of lumber are manufactured annually. *Wolf River*, the main channel of communication with the pine-region, is navigable for steamboats a distance of 100 miles. (See Lake Winnebago, page 213.)

Appleton, Wis. (213 miles), is pleasantly situated on an eminence overlooking the Fox River, 30 miles from its mouth, 5 miles from Lake Winnebago, and 214 from Chicago by the *Northwestern Railway*; from Milwaukee 177 miles, *via Milton Junction*. The rapids, known as the *Grand Chute*, have a descent of about 30 feet in a distance of one mile and a half. Appleton is the seat of *Lawrence University*. The scenery in the vicinity is attractive, and the approach

to the city from Green Bay presents some of the most picturesque scenes to be found in this region.

Little Chute, Kaukauna, Wrightstown, and *De Pere*, are small places having stations on the *Northwestern road*, between Appleton and

Fort Howard (242 miles), the terminus of the Wisconsin division of the *Northwestern Railway*.

Green Bay City, Wis. (243 miles), opposite Fort Howard, with which it is connected by a free drawbridge, is a place of some interest to Lake Superior and Green Bay tourists. The steamers on Lake Michigan and the bay all stop here. The descent in the Fox River affords fine manufacturing facilities, which have been considerably employed. The trip northward up the lake is a favorite one with those who have taken it during the summer months. The steamer runs daily during the season of navigation, on the arrival of the cars from Chicago, for Escanaba, Marquette, and ports on Lake Superior.

Green Bay.—On leaving the city of Green Bay by steamer for Escanaba, 100 miles, the tourist passes through one of the most beautiful sheets of water, connecting with Lake Michigan on the north.

The harbor of Green Bay is formed by the Fox or Neenah River, which here enters from the south, the outward channel being crooked and circuitous until the light-house, 7 miles distant, is passed, when the bay widens, and a large expanse of water is presented to view.

Oconto, 30 miles north of Green Bay, having daily communication by steamboat, is a flourishing lumbering village, lying on the west side of the bay, near the mouth of a river of the same name.

Little Sturgeon Point (40 miles) lies on the east shore of the bay.

Sturgeon Bay is a deep indentation, running nearly across the neck of land which separates Green Bay from Lake Michigan; it is proposed to construct a ship-canal to connect them.

Menomonee (58 miles) lies at the mouth of the river of the same name, which forms the dividing line between the States of Wisconsin and Michigan. It is a flourishing lumbering village, whence are

annually shipped large quantities of lumber to Chicago and Eastern markets.

Green Island (60 miles), nearly midway between the termini of the boat route, lies in the middle of the bay, where there is a light-house.

Hat Island and *Strawberry Island* are small tracts of land passed on the east, near the main shore.

Chambers's Island (75 miles) is a large and fertile body of land, lying near the middle of the bay, which is here about 20 miles wide.

Porte de Mort (*Death's Door*) is the entrance into Lake Michigan, separating the main-land from Washington Island, on the north, which is attached to the State of Michigan. To the east lie the broad waters of Lake Michigan.

Cedar River (90 miles) enters from the west, where is a lumbering establishment, the whole west shore of Green Bay producing a heavy growth of pine and other kinds of timber.

Leaving Cedar River, the steamer's course lies for *Little Bay de Noquet*, 30 miles distant, affording a view of the waters of Lake Michigan on the east, while to the north lies *Great Bay de Noquet*, about 10 miles wide and 20 miles in length.

Pensaukee, *Peshigo*, and other towns are springing up on the west shore of Green Bay, where are to be found numerous large lumber establishments, situated on the streams running into the bay.

Escanaba, Mich. (343 miles from Chicago), is a new and promising town, situated on the western shore of Little Bay de Noc, 120 miles north of the city of Green Bay, and is the southern terminus of the *Peninsular Railway of Michigan*. This place, laid out in the spring of 1864, has a good and secure harbor, of easy access, with a sufficient depth of water for the largest class of vessels navigating the lakes. The docks erected by the railroad company are of a substantial and commodious character, intended for the transshipment of iron and copper ore from the Lake Superior mines, distant about 65 miles.

The site of the town lies on Sand Point, where is a favorable view of the waters of Green Bay lying to the south, and

Little Bay de Noc on the north. The streets are laid out at right angles, with ample public grounds adjoining the waterfront. The future of this place is promising, being identified with the rich mineral deposits of the Upper Peninsula of Michigan, bordering on Lake Superior. Escanaba has good hotel accommodation.

The *Peninsular Railway* runs from the wharf at Escanaba, through a new and wild section of country, to Negaunee, 62 miles, there intersecting the *Bay de Noquet and Marquette Railway*, 13 miles above Marquette, forming a through-line of travel.

Marquette, Mich. (418 miles). (See page 145.)

The *Bay de Noquet & Marquette* and the *Marquette & Ontonagon Railways* form a connection at the iron-mines, and now extend to Lake Michigami, 40 miles from Marquette. This important road is rapidly extending to Ontonagon, 120 miles, also to Portage Lake, thus connecting the iron and copper regions of Lake Superior. (See LAKE AND RIVER TOUR, No. I, page 145.)

ROUTE VIII.

RACINE, WIS., TO ROCK ISLAND, ILL.

Via Western Union Railway.

STATIONS.—Racine (connects with Milwaukee Division Chicago & Northwestern Railway): Union Grove, 15 miles; Burlington, 27; Springfield, 34; Elkhorn (connects with Milwaukee Division), 41; Sharen, 50; Clinton (connects with Wisconsin Division of Chicago & Northwestern Railway), 59; Beloit (connects with Madison Division of Chicago & Northwestern Railway), 69; Durand, 85; Freeport (connects with Galena Division of Chicago & Northwestern and with Northern Division of Illinois Central Railway), 104; Shannon, 118; Mt. Carroll, 131; Savanna, 142; Thomson, 152; Fulton (connects with Iowa Division of Chicago & Northwestern Railway), 159; Cordova, 175; Port Byron, 180; Rock Island Junction (connects with Chicago, Rock Island & Pacific Railway), 190; Rock Island, 197.

Racine. (See page 214.)

Elkhorn (41 miles), the capital of Walworth County, is a town of about

3,000 inhabitants, situated in the midst of a very fertile country, which is diversified by prairies and small lakes.

Clinton (59 miles). (*See* page 218.)

Beloit (69 miles). (*See* page 199.)

Savannah, Ill. (142 miles). (*See* page 161.)

Fullton (159 miles). (*See* page 73.)

Rock Island (197 miles). (*See* page 76.)

ROUTE IX.

MADISON, WISCONSIN, TO CHICAGO, ILLINOIS.

Via Madison Division of Chicago & Northwestern Railway.

STATIONS.—Madison (connects with railways diverging): Oregon, 10 miles; Magnolia, 27; Hanover, 34; Afton, 40; Beloit (connects with Western Union Railway), 47; Caledonia (connects with Kenosha Division), 60; Harvard (connects with Wisconsin Division), 75; Chicago (connects with railways diverging), 138.

Madison. (*See* page 199.)

Beloit (47 miles). (*See* page 199.)

Caledonia (60 miles) connects with the Kenosha Division. (*See* page 199.)

Harvard (75 miles). (*See* page 199.)

Chicago (138 miles). (*See* page 6.)

ROUTE X.

SHEBOYGAN TO FOND DU LAC.

Via Sheboygan & Fond du Lac Railway.

STATIONS.—Sheboygan (connects with steamers on Lake Michigan): Sheboygan Falls, 5 miles; Glenbeulah, 21; St. Cloud, 26; Calvary, 31; Fond du Lac (connects with Wisconsin Division of Chicago & Northwestern Railway), 45.

Sheboygan, the capital of Sheboygan County, is situated on a river of the same name, 6 miles from its entrance into Lake Michigan, with which it connects by steamer. It is an active village of about 3,500 inhabitants, and engages largely in the manufacture of lumber.

Fond du Lac (15 miles). (*See* page 219.)

MINNESOTA.

THE State of Minnesota derives its name from its principal river, the *Minnesota* (St. Peter's), which, in the Sioux or Dakota language, means "muddy water." It extends from $43\frac{1}{2}^{\circ}$ to 49° north latitude, and from $89^{\circ} 29'$ to $97^{\circ} 5'$ west longitude, and is bounded on the north by the British possessions, on the south by Iowa, on the east by Lake Superior, Wisconsin, and the Mississippi River, and on the west by Dakota Territory.

Romantic stories of the wonders of the land, which now forms the State of Minnesota, were told more than two centuries ago by the zealous French missionaries, who had even at that remote period pushed their adventures thither; nevertheless, scarcely twenty years have elapsed since immigration has earnestly set that way, creating populous towns and cultivated farms along the rivers and valleys, before occupied by the canoe and the wigwam of the savage alone. Some idea of the marvellous

growth and development of this young State may be formed by the fact that during the past decade the cultivated area of Minnesota has increased nearly 300 per cent., the population nearly 250 per cent., and the value of manufactures about 250 per cent. In 1850, the census showed a population of 5,330; in 1860, 172,023; and in 1870, 435,511. The total valuation of real estate and personal property in 1860 was \$32,018,773. By the census of 1870, it is now \$84,160,368. The magical development of Minnesota is in keeping with that marvellous spirit of progress so characteristic of the Western sections of the United States. So rapid is this growth, and on such a sure and enlightened basis, that the church and the school-house spring up in the wilderness before there are inhabitants to occupy them. In Minnesota, one of the earliest foundations was that of an Historical Society (1849), established almost before the his-

tory of the country had begun. As a field of adventure for student and sportsman, Minnesota offers greater attractions than perhaps any other State in the West; while the beauty of its scenery and the salubrity of its climate present inducements to the lover of Nature and the invalid which will always make it a desirable region for exploration and settlement. Minnesota occupies an area almost four times as great as that of the State of Ohio, extending from the Mississippi and the St. Croix Rivers, and from Lake Superior on the east to the Missouri and the White-Earth Rivers on the west, a distance of more than 400 miles; and from the Iowa line on the south to the British borders on the north—also 400 miles apart. The entire area embraces 81,259 square miles, or 53,760,000 acres. Almost the whole of this vast region is a fine rolling prairie of rich soil, a sandy loam adapted to the short summers of the climate, and which produces bounteously. The surface of the country, excepting the Missouri plains, is interspersed with numerous beautiful lakes of fresh water—all abounding in the finest fish, and their banks covered with a rich growth of woodland.

The land of Minnesota is about equally divided between oak-openings and prairies, the whole well watered by numerous navigable streams. In the eastern section, on the headwaters of the Mississippi, Rum River, and the St. Croix, are extensive pine and hard-wood forests, apparently inexhaustible for centuries; while from the mouth of *Crow-wing River*, a tributary of the Mississippi, an extensive forest of hardwood timber, fifty miles in width, extends southwest-erly into the country watered by the Blue-Earth River, a tributary of the Minnesota River, emptying into it 150 miles above its mouth.

The *Minnesota River* rises near Lac Traverse, flows southeasterly a distance of 450 miles, and empties into the Mississippi at Fort Snelling, seven miles above St. Paul, and the same distance below St. Anthony. This is one of the finest streams in the valley of the Mississippi, and the country through which it flows is not excelled for salubrity of cli-

mate and fertility of soil by any part of the United States. In a good stage of water, steamboats can ascend it almost to its source. A portage of three miles then connects it with Lac Traverse; and the outlet of the latter, the Sioux Wood River, with the famous *Red River of the North*. This stream is navigable at all seasons for steamboats from Bois de Sioux (Sioux City) to Pembina, on the British line, to the Selkirk settlements, 100 miles beyond and even to Lake Winnipeg. The *Mississippi* has been described in LAKE AND RIVER TOUR, No. I. *St. Croix Lake and River* are navigable to the Falls, 60 miles above the junction of the lake and Mississippi; and the *St. Louis River* is navigable from Lake Superior 20 miles to Fond du Lac. Numerous other streams are navigable for light-draught steamers and flat-boats from 50 to 100 miles, penetrating into the interior to the pineries, and giving easy access into the country in all directions. These are the *Blue-Earth, Rum, Elk, Sauk, Crow, Crow-wing, Vermilion, and Cannon Rivers*.

The Lakes of Minnesota, which are very numerous, form one of the most inviting and picturesque features of the State. They are found in every section, and are annually visited by large numbers of tourists and sportsmen. Sometimes they are little ponds a mile in circumference, and, again, sheets of water 40 or 50 miles in extent. Their shores are charmingly wooded, and frequently present fine pictures of cliff and headland. The waters are pure and transparent, and are filled with white-fish, trout, pike, pickerel, sucker, perch, and other finny inhabitants. The largest of these lakes are the *Minnetonka*, the *Osakis* or *Spirit Lake*, *White Bear*, *Kandiyohi*, *Otter-tail*, and *Mille Lac*. *Lake Pepin*, a beautiful expansion of the Mississippi, is in this region. On its east bank is the famous *Maiden's Rock*, 400 feet high; and, near the northern end, the *La Grange Mountain* rises in a bold headland, 230 feet above the water. *Rainy Lake*, *Minne-Waken* or *Devil Lake*, *Red* and *Leach Lakes*, are all in this State.

On the northeastern border of the territory is Lake Superior, with its valua-

ble fisheries and its shores abounding in inexhaustible mines of copper, coal, iron, etc., besides affording the facility of that vast inland sea for immigration and commerce. (*See LAKE AND RIVER TOUR, No. I.*)

Various elevated ridges traverse Minnesota, though the State is far from being of a mountainous character. The plateau called the *Coteaux des Prairies*, or the Prairie Heights, is one of these singular terraces. It extends 200 miles, with a breadth varying from 20 to 40 miles. The average elevation of this lofty plain is some 1,500 feet, and in some parts it rises nearly 2,000 feet above the level of the sea. In the north it is about 900 feet above the neighboring waters of Big-Stone Lake. There is another range of wooded heights, reaching 100 miles or more, called the "Coteau du Grand Bois." Then there are the "Hauteurs de Terre," highlands which extend some 300 miles. These last-mentioned ridges form the dividing line of the rivers, which flow to Hudson's Bay on one side and to the Mississippi and Lake Superior on the other.

ROUTE I.

MILWAUKEE, WIS., TO ST. PAUL,
MINN.

Via Milwaukee & St. Paul Railway.

STATIONS. — Milwaukee : Brookfield Junction (La Crosse Division diverges), 14 miles ; Waukesha, 20 ; Eagle, 36 ; Palmyra, 42 ; Whitewater, 50 ; Milton, 62 ; Milton Junction (connects with Wisconsin Division of Chicago & Northwestern Railway), 63 ; Edgerton, 70 ; Stoughton, 80 ; Madison (connects with railways diverging), 95 ; Mazomanie, 118 ; Spring Green, 132 ; Avoca, 145 ; Muscoda, 151 ; Boscobel, 165 ; Prairie du Chien, 193 ; North McGregor, 194 ; Postville, 220 ; Ossian, 231 ; Calmar (Iowa & Dakota Division diverges), 237 ; Conover, 240 ; Cresco, 256 ; Lime Springs, 267 ; Le Roy, 279 ; Austin (Mason City & Minnesota Branch diverges), 305 ; Ramsey (connects with Southern Minnesota Railway), 308 ; Blooming Prairie, 320 ; Owatonna (connects with Winona & St. Peter's Railway), 338 ; Faribault,

353 ; Dundas, 364 ; Northfield, 367 ; Farmington (connects with Hastings & Dakota Division), 380 ; Mendota (connects with St. Paul & Sioux City Railway), 400 ; Minneapolis (connects with St. Paul & Pacific Railway), 409 ; St. Paul, 406.

From Milwaukee to Prairie du Chien this road has been described as ROUTE II. of WISCONSIN (*see* page 216) ; and from McGregor, Iowa, to Austin, Minn., as ROUTE VIII. of IOWA. (*See* page 206.)

Faribault (353 miles), the capital of Rice County, situated at the confluence of the Cannon and Straight Rivers, is one of the most populous and thriving interior towns in the State. In 1853 it was the site of Alexander Faribault's trading-post. Since 1857 its growth has been rapid, and the present population is estimated at 5,000. The *State Asylum* for the deaf and dumb, and an Episcopalian College, are located here. The *National* and the *Barron House* are the leading hotels.

Owatonna (338 miles), the capital of Steele County, on Straight River, connects with the *Winona & St. Peter's Railway*.

Mendota (400 miles), which lies about half a mile below the mouth of the Minnesota, was formerly a trading-post of the American Fur Company, but is now mainly important to the traveller as a point of convergence and radiation for the several railway lines leading to and from St. Paul, Minneapolis, and Winona. Until within a few years it was included in the military reserve of Fort Snelling. It has not attained that degree of prosperity so remarkable in the villages of St. Paul and Minneapolis, and which its far more favorable position might justly have secured for it. The vicinity commands some fine views. From *Pilot Knob*, which lies back of Mendota, a view may be obtained of the surrounding country as far as the eye can reach, affording to the spectator a sight of one of the most charming natural pictures to be found in this State, so justly celebrated for scenic beauty. The view embraces, within a circle of eight or nine miles, a grand spectacle of rolling prairie, extended plain and groves, the valley of the Minnesota

with its meandering stream, a bird's-eye view of Fort Snelling, Lake Harriet in the distance—the town of St. Anthony just visible through the nooks of the intervening groves—and St. Paul, looking like a city set upon a hill, its buildings and spires distinctly visible, and presenting in appearance the distant view of a city containing a population of a hundred thousand human beings.

Minneapolis (409 miles), the capital of Hennepin County, and one of the most populous and flourishing points in the State, is situated on the west bank of the Mississippi, in full view of the falls and the town of St. Anthony. It connects with the *St. Paul & Pacific Railway*. The town is well built and contains several commodious buildings, among which the *Court-House*, the various mills, and the two leading hotels, the *Nicollet House* and *First National Hotel*, are the most prominent. The *Music Hall*, *Athenæum* (Post-Office), and *Harrison Hall*, are also among the principal buildings. Like its neighbor, St. Anthony, Minneapolis derives much of its prosperity from the adjacent falls. The saw and grist mills are numerous and extensive. A short distance south of the town is an enclosure of 75 acres which is used as a *Driving Park*. *Silver Cascade* and *Bridal Veil Falls* are reached in an easy ride from Minneapolis. *Lakes Harriet and Calhoun* afford delightful drives and sport. *Lake Minnetonka* is 12 miles westward. Minneapolis is growing more rapidly than any other town in the State, and, having just absorbed St. Anthony, is disputing the supremacy with St. Paul.

St. Paul (406 miles). (See page 154.)

ROUTE II.

LA CROSSE TO WINNEBAGO.

Via Southern Minnesota Railway.

STATIONS.—La Crosse (connects with La Crosse Division Milwaukee & St. Paul Railway): Hokah, 6 miles; Houston, 19; Rushford, 31; Whalan, 45; Lanesboro', 51; Fountain, 62; Grand Meadow, 86; Ramsey (connects with Minnesota Division of Milwaukee & St. Paul Railway), 107; Albert Lea, 128; Alden, 138;

Wells, 148; Winnebago (connects with stages for Blue Earth City, etc.), 170.

La Crosse. (See page 160.)

Ramsey (107 miles) connects with the *Minnesota Division of the Milwaukee & St. Paul Railway*.

Winnebago (170 miles) connects with stages to Blue Earth City.

ROUTE III.

WINONA TO ST. PETER.

Via Winona & St. Peter Railway.

STATIONS.—Winona (connects with river steamers): Minnesota City, 6 miles; Lewiston, 19; St. Charles, 28; Eyota, 37; Rochester, 50; Kasson, 65; Claremont, 78; Owatonna (connects with Milwaukee & St. Paul Railway), 90; Meriden, 99; Waseca, 105; Janesville, 116; Mankato Junction (branch to Mankato diverges), 131; St. Peter (connects with St. Paul & Sioux City Railway), 140.

Winona. (See page 159.)

Rochester (50 miles), the capital of Olmsted County, on the southern branch of the Zumbro River, is rather an important station. It is surrounded by rich farms, of which wheat is the staple product. Population about 2,500.

Owatonna (90 miles). (See page 223.)

Waseca (105 miles) is situated on beautiful prairie-land, in the county of the same name.

Mankato (131 miles), the capital of Blue Earth County, is on the right bank of the Minnesota or St. Peter River, 148 miles from its mouth, at the head of permanent navigation. It is in the midst of a fertile country, and must eventually become a place of much importance. Population about 4,000.

St. Peter (140 miles), the capital of Nicollet County, is advantageously situated on the Minnesota River. It connects with the *St. Paul & Sioux City Railway*.

ROUTE IV.

ST. PAUL TO ST. JAMES.

Via St. Paul & Sioux City Railway.

STATIONS.—St. Paul (connects with diverging railways and with river steam-

ers): Mendota Junction (connects with Milwaukee & St. Paul Railway), 6 miles; Hamilton, 18; Shakopee (connects with Hastings & Dakota Division of Milwaukee & St. Paul Railway), 28; Brentwood, 39; Belle Plaine, 47; Le Sueur, 63; St. Peter (connects with Winona & St. Peter Railway), 75; Mankato, 86; Lake Crystal, 100; Madelia, 110; St. James, 122.

St. Paul. (See page 154.)

Mendota Junction (6 miles). (See page 223.)

St. Peter (75 miles). (See page 224.)

Mankato (86 miles). (See page 224.)

St. James (122 miles) is the present terminus of the road.

ROUTE V.

ST. PAUL TO BRECKENRIDGE.

Via First Division St. Paul & Pacific Railway.

STATIONS.—St. Paul (connects with river steamers and diverging railways): St. Anthony Junction, 10 miles; St. Anthony, 10; Minneapolis, 11; Wayzata (connects with steamer for Excelsior), 25; Long Lake, 28; Maple Plain, 33; Delano (connects with stages for Watertown and Rockford), 40; Waverly, 49; Howard Lake, 64; Smith Lake, 57; Cokato, 61; Dassel, 67; Darwin, 72; Litchfield, 84; Kandiyohi, 104; Willmar, 125; Breckenridge, 217.

St. Paul. (See page 154.)

St. Anthony (10 miles) is a thriving place on the left bank of the Mississippi, at the famous falls of St. Anthony. The village is situated upon a lofty terrace overlooking the falls. It was incorporated in 1855, but now forms part of Minneapolis. Its position at the head of navigation on the Father of Waters, below the falls, is of immense commercial consideration, and the falls afford incalculable water-power for manufactories. The *State University* and the *Winslow House* building, now used for the purpose of a hygienic water-cure, are seen in approaching or entering the town. St. Anthony is connected with Minneapolis by a suspension-bridge 620 feet in length, erected in 1855.

The Falls of St. Anthony, the principal attraction hereabouts, can be seen with about equal advantage from either shore. The fall is 18 feet perpendicular, with a rapid descent of 50 feet within a distance of one mile. The river at this point is divided by an island (Nicollet), as at Niagara, where it rushes over a bold and broad ledge of limestone. The falls are not so striking as one might expect from the descriptions given them by some travellers. Says a tourist: "There is no prodigious height for the water to leap from, as at Niagara, but the rapids are grander and quite as extensive, while their power is shown by the large slabs of stone which lie in distorted piles along the shore, some standing up on end like giant tombstones, others piled irregularly as if trying to crowd away from the fearful force of the water.

"For a quarter of a mile above the main fall the bed of the river is composed of a thin stratum of limestone, supported by sandstone. This latter, being soft and crumbling, is worn away under the constant action of the water, thus forming a sort of cave, with the slab of limestone from which the water falls overhanging it. Of course, as this excavation grows deeper, the limestone having nothing to support it, and unable to bear the heavy mass of water, breaks away, and thus St. Anthony's Falls recede.

"As a mere spectacle, St. Anthony's Fall is grander by moonlight than at any other time, for then the unpoetical and unsightly buildings around it do not obtrude themselves, while the noise and dash of the rapids are heard and seen to perfection. At such a time St. Anthony's waters present an overpowering idea of furious strength, and one worthy to be remembered along with the recollections of Niagara itself. A greater contrast to the gentle beauty of Minnehaha it would be impossible to find; and yet these two cataracts are within a short walking-distance of each other, and to tourists both will be, for ages to come, among the greatest attractions of the Northwest."

Minneapolis (11 miles). (See page 224.)

Kandiyohi (104 miles) is situated in a county of the same name, which contains numerous small lakes, the name

of one of which is Kandiyohi. The country around here is undulating or nearly level, and the soil is very fertile.

Breckenridge (217 miles) is on the Red River of the North, at the mouth of the Sioux Wood River.

ROUTE VI.

ST. PAUL TO SAUK RAPIDS, CROW WING, AND THE RED RIVER.

Via Sauk Rapids Branch of St. Paul & Pacific Railway, and by Stage to Crow Wing.

STATIONS.—St. Paul (connects with river steamers and diverging railways): St. Anthony Junction, 10 miles; Manomin, 18; Anoka, 30; Itasca, 36; Elk River (connects with stage for Princeton), 40; Big Lake (connects with stage for Monticello), 50; Clear Lake (connects with stage for Clear Water), 65; St. Cloud (connects with stage for Sauk Centre, Alexandria Fort, Abercromis, and Fort Garry, B. N. A.), 75; Sauk Rapids (connects with stage for Little Falls, Fort Ripley, and Crow Wing), 78.

St. Paul. (*See page 154.*)

St. Anthony (10 miles). (*See page 225.*)

Anoka (30 miles), the capital of Anoka County, is situated at the mouth of Mille Lac (Rum River), at its confluence with the Mississippi. It was surveyed in 1854, and has a population of about 2,500.

St. Cloud (75 miles), on the west side of the Mississippi, at the foot of Sauk Rapids, is a thriving place of some 3,000 inhabitants. It has a good hotel (Fletcher House).

Sauk Rapids (78 miles) is a pretty village, connecting by stage with Little Falls, Fort Ripley, and Crow Wing. The river here falls 15 feet in a distance of half a mile, and furnishes a valuable water-power. The Mississippi above the rapids flows through a level country, interspersed with timber, as far as *Crow Wing*.

From Sauk Rapids the adventurous tourist may pursue his journey nearly 200 miles to the Red River, or still farther to Fort Garry, in British North America.

Crow Wing (120 miles from St. Paul), on the east bank of the Mississippi River, opposite the mouth of Crow-Wing

River, is an important Indian trading-post, and prospectively a place of much importance in connection with the *St. Paul & Pacific Railway*, which will eventually be extended northward to Pembina, on the Red River. The *St. Paul & Pacific Railway* has been bought by and practically consolidated with the *Northern Pacific Railway*.

ROUTE VII.

DULUTH TO MISSOURI RIVER.

Via Northern Pacific Railroad.

STATIONS.—Duluth (connects with lake steamers to Eastern ports): Spirit Lake, 9 miles; Thomson, 23; Junction (connects with Lake Superior & Mississippi Railroad), 24; Island Lake, 46; Kimberly, 76; Brainerd, 115; Motley, 137; Hayden, 143; Aldrich, 151; Leaf River, 166; Detroit, 206; Oak Lake, 210; Hawley, 229; Glyndon, 242; Moorhead (connects with stages and steamboats on Red River for Pembina and Fort Garry), 252.

The *Northern Pacific Railroad*, which when completed will form the second great highway across the continent, is now finished from Duluth to Bismarek, at the crossing of the Missouri River. It strikes directly across the centre of Minnesota and Dakota, and traverses their richest portions, which are fast filling up with settlers. For the first 24 miles, from Duluth to the *Junction*, it is identical with the Lake Superior & Mississippi Railroad, and between the two passes by the picturesque and striking scenery of the Dalles of the St. Louis, already described on page 153. At

Brainerd (115 miles) the road crosses the Mississippi on a stout wooden bridge, and enters upon the prairie-region of Minnesota.

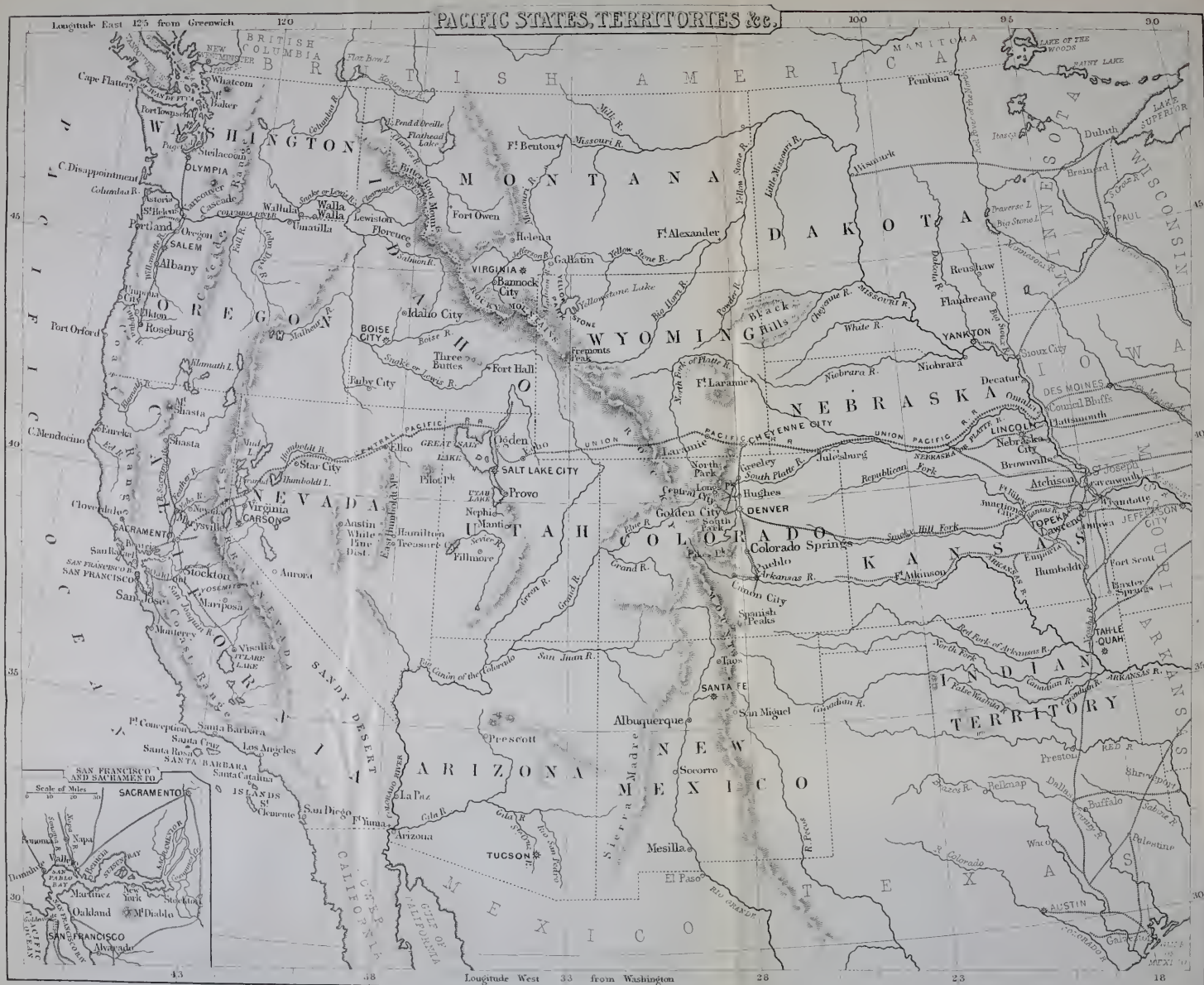
Detroit (206 miles) is the depot for Detroit Lake, where the "Boston Colony" is located.

Glyndon (242 miles) is the site of another flourishing colony; and

Moorhead (252 miles), at the crossing of the Red River of the North.

Bismarek (465 miles) is at the crossing of the Missouri River and at present the terminus of the road.





ROUTE VIII.**ST. PAUL TO RED WING.**

Via St. Paul & Chicago Division of St. Paul & Milwaukee Railway.

STATIONS.—St. Paul (connects with river-steamers and diverging railways): Hastings, 20 miles; Red Wing (connects with river-steamers), 41.

St. Paul. (*See* page 154.)

Hastings (20 miles). (*See* page 158.)

Red Wing (41 miles). (*See* page 159.)

ROUTE IX.**ST. PAUL TO ST. CROIX, WISCONSIN.**

Via Steamboat down the Mississippi River and up the St. Croix River.

LANDINGS.—St. Paul: Red Rock, 7 miles; Hastings, 17; Vermilion River, 20; Point Douglas, 25; Prescott, Wis., 25; Hudson, Wis., 41; Stillwater, 46; Marine Mills, 61; Osceola, 70; St. Croix, 79.

The Mississippi River, from St. Paul to Prescott, has been described. (*See* pages 154-158.)

Stillwater (46 miles), in Washington County, upon the west bank of Lake St. Croix, was first settled in 1843, and is rapidly becoming a populous and important place.

Osceola (70 miles), a small village, was named in honor of a celebrated Seminole chief.

Lake St. Croix, an expansion of the river, 36 miles in length, which opens out shortly after leaving the Mississippi, is a beautiful sheet of water. Steamers run up the St. Croix Lake and River to the falls.

The *St. Croix Falls*, or Rapids, are in the St. Croix River, 54 miles from its mouth. The St. Croix continues the boundary-line between Wisconsin and Minnesota, in the upper half of the State, formed below by the waters of the Mississippi. The falls in the St. Croix have a descent of 50 feet in 300 yards. The perpendicular walls of trap-rock, between which the waters make their boisterous way, present a scene of remarkably picturesque interest. This wild pass is about half a mile below the Rapids. It is called the Dalles of the St. Croix.

MISSOURI.

MISSOURI was formerly part of the ancient territory of Louisiana, purchased by the United States from France. It is one of the largest of the United States, being 285 miles long, and nearly 280 miles wide, and embraces an area of 67,380 square miles, or 43,000,000 acres. It was the first State formed wholly west of the Mississippi. A settlement called Fort Orleans was made within its limits by the French in 1719. The oldest town in the State, St. Genevieve, was founded in 1755. St. Louis was commenced in 1764. The State was visited in 1811 and in 1812 by a memorable series of earthquakes, which occurred in the neighborhood of New Madrid. The face of the country was greatly altered by these events; hills entirely disappeared, lakes were obliterated, and new ones formed. The waters of the Mississippi River were turned back with such accumulations,

that they overran the levees built to hem them in, and inundated whole regions, leaving them in their present marshy state.

The more recent history of Missouri has been eventful. The State was the scene of active and widely-extended operations by both Federal and Confederate forces during the war of 1861-'65. As the only slaveholding State on the western border, it early attracted the attention of the Government. A convention met at Jefferson City, February 28, 1861, which was adjourned to meet at St. Louis, March 4th, following. On the 16th of May, 1861, a camp of instruction, located in the western suburbs of St. Louis, and known as "Camp Jackson," and composed of State militia under the command of General Frost, surrendered to the United States troops under General Lyon. In marching out a riot took

place, in which twenty-five persons were killed and wounded. The respective forces in the State in November of that year were estimated to amount to 42,000 men, 27,000 of whom were Federals. The State was the scene of almost continuous invasion, fighting, "bushwhacking," and rioting, during 1862-'63, and indeed until nearly the close of the war. In October, 1864, the Confederates under Price were routed near the crossing of the Little Osage River, and either taken prisoners or driven out of the State.

The surface of Missouri is in many parts level or but slightly undulating. A wide, marshy tract occupies an area of 3,000 square miles in the southeastern part, near the Mississippi. In other sections are vast reaches of prairie-lands, extending to the Rocky Mountains.

The climate is very variable; the winters are very cold, and the summer very hot, but the air is dry and pure. In the summer the climate is trying to persons in delicate health.

The soil is generally good and of great agricultural capabilities. The most fertile portions are the river-bottoms. The most important staple of Missouri is Indian corn, and more hemp is produced than in any State except Kentucky. Tobacco, flax, and all the varieties of grains, fruits, vegetables, and grasses, are raised in abundance, the soil being admirably adapted to their successful growth.

Timber is very plentiful, the river-bottoms being "covered with a luxuriant growth of oak, elm, ash, hickory, cottonwood, linn, and white and black walnut. In the more barren districts are found white and pin oak, and sometimes forests of yellow pine. The crab-apple, papaw, and persimmon, are abundant; as also the hazel and pecan."

The population in 1860 was 1,182,012. By the census of 1870 it was 1,722,102. The total valuation of real estate and personal property is given by the late census as \$552,728,032, against \$266,935,651 in 1860.

Some remarkable caves have been discovered of late years in Missouri. One of these is in the Ozark Mountains, Green County, about six miles from Springfield.

In the southwest of the State are many other caves.

The *Ozark Mountains*, which traverse the State of Arkansas, extend through Missouri, centrally, from north to south, in the form of elevated table-lands. The rich alluvial tracts of the Mississippi lie east of this district, and westward are boundless deserts and treeless plains, sweeping away to the base of the Rocky Mountain ranges. Missouri is divided into 113 counties.

Big Trees of Missouri.—

It is popularly supposed that California has the biggest trees in the world; but Prof. Swallow, of the Missouri Geological Survey, claims the distinction for his own State. He gives the following actual measurement of trees in Southwest Missouri:

"The largest is a sycamore in Mississippi County, 65 feet high, which, two feet above the ground, measures 43 feet in circumference. Another sycamore, in Howard County, is 38 feet in circumference. A cypress in Cape Girardeau County, at a distance of one foot from the ground, measures 29 feet in circumference. A cotton-wood in Mississippi County measures 30 feet at a distance of six feet above the ground. A pecan in the same county measures 18 feet in circumference. A black walnut in Benton County is 26 feet in circumference. A tulip-tree (poplar) in Cape Girardeau County is 30 feet in circumference. There is a tupelo in Stoddard County 30 feet in circumference. There is a hackberry in Howard County 11 feet in circumference. A Spanish oak in New Madrid County is 26 feet in circumference. A honey locust in Howard County is 13 feet round. There is a willow in Pemiscot County that has grown to the size of 24 feet in circumference, and 100 feet in height. Mississippi County boasts of a sassafras that must be king of that tribe; it measures nine feet in circumference. In Pemiscot County there is a dogwood six feet in circumference." These are large trees, but the reader will observe that they are very much smaller than those of California, one of which is 107 feet in circumference.

MINERALS, ETC.

The State is remarkably rich in iron-ore, lead and copper and coal mines, and

in nearly all the mineral products. It possesses, too, a great variety of marbles, some of them beautifully variegated, and other valuable building-stones. *Pilot Knob* and *Iron Mountain*, 85 miles south of St. Louis, are mineral curiosities well worth a visit.

The distribution of metals all over the State will be seen in the following figures: Iron in forty-six counties, lead in forty-three, coal in thirty-six, copper in twenty-four, marble in eleven, zinc in twenty-seven, fire-clay in sixteen, barytes in ten, nickel in six, granite in four, tin in four, plumbago in two, gypsum in two, alum in one, antimony in four. There is probably no country in the world so endowed as this. Of iron alone, according to the State Geologist's report for 1855, there is ore of the best quality, sufficient to furnish 200,000,000 tons of iron; and this quantity lies in a small space, in the vicinity of *Pilot Knob* and *Iron Mountain*, and within 100 miles of St. Louis. The quality of the iron is highly spoken of by the manufacturers, and the capacity of the smelting appliances has reached to over 150,000 tons per annum. The coal is well suited for reduction of ores, either by hot or cold blast treatment. The *Scotia Iron Company* commenced operations in January, 1870; and, although the materials for building blast-furnaces had to be carried 80 miles into a desert, the first furnace was blown into blast in August, 1870. This furnace will run about twenty-four tons per day. The company procures ore from a hill, near the furnace, in which there is an apparently inexhaustible supply of red oxide and brown specular. This ore yields 60 per cent. of pure metal. The erection of mills for making wrought-iron is contemplated, and the high quality and prodigious quantity of the raw material will justify and reward any outlay of capital in this direction.

The shipment of ore to other States goes on constantly, the account for 1870 showing that 246,555 tons were dispersed over Indiana, Ohio, and others. The furnaces at *Kingsland*, *South St. Louis*, *Lewis Iron Company's Works*, *Carondelet*, and *Maramee*, are all well situated as to coal and limestone, the *Maramee Works* having a most valuable

water-power. These latter works also ship about 40,000 tons red hematite-ore yearly.

RIVERS.

The Missouri is fully described in *LAKE AND RIVER TOUR*, No. III.

The Yellowstone, one of the principal tributaries of the Missouri, rises in the same range of mountains with the main stream. It enters from the south by a mouth 850 yards wide, and is a broad and deep river, having a course of about 1,600 miles. (*See chapter on MONTANA.*)

The Platte, another tributary of the Missouri, rises in the same range of mountains with the parent stream, and, measured by its meanderings, is supposed to have a course of about 2,000 miles, before it joins that river. At its mouth it is nearly a mile wide, but is very shallow, and is not navigable, except at its highest floods. (*See page 97.*)

The Kansas, or *Kaw River*, is a very large tributary, having a course of about 1,200 miles, and is navigable for most of the distance. (*See chapter on KANSAS.*)

The Osage is a large and important branch of the Missouri; it is navigable for 200 miles, and interlocks with the waters of the Arkansas.

The Gasconade, navigable for 66 miles, is important from having on its banks extensive pine-forests, from which the great supply of plank and timber of that kind is brought to St. Louis.

ROUTE I.

ST. LOUIS TO KANSAS CITY.

Via St. Louis & Kansas City Division of North Missouri Railway.

STATIONS.—St. Louis: Ferguson, 11 miles; Bridgeton, 15; Brotherton, 20; St. Charles, 21; Dardenne, 30; O'Fallon, 34; Wentzville, 43; Millville, 49; Wright's, 52; Warrenton, 58; Pendleton, 64; Jonesburg, 68; High Hill, 73; New Florence, 77; Montgomery, 83; Wellsville, 90; Martinsburg, 95; Mexico, 109; Centralia Junction (connects with Columbia Branch), 122; Sturgeon, 130; Renick, 140; Moberly Junction (connects with Iowa Division), 146; Huntsville, 153; Clifton, 160; Salisbury, 167;

Keytesville, 174; Dalton, 178; Brunswick (connects with Branch to Chilli-cothe), 186; Dewitt, 192; Miami, 196; Carrollton, 209; Norborne, 218; Hardin, 226; Junction (connects with St. Joseph Division), 232; Camden, 238; Orrick, 243; Missouri City, 252; Liberty Landing, 260; North Missouri Junction (Junction of Kansas City Branch of Hannibal & St. Joseph Railway), 262; Harlem, 271; Kansas City (connects with Kansas Pacific and with Missouri River, Fort Scott & Gulf Railways), 272.

This railway traverses an exceedingly fertile region, which it has been the means of opening to settlement and development. At Moberly it divides, one branch running north and the other west. As yet there are but few places of importance on either line.

ROUTE II.

ST. LOUIS TO OTTUMWA, IOWA.

Via Iowa Division of North Missouri Railway.

STATIONS.—St. Louis: Moberly Junction (connects with Kansas City and St. Joseph Divisions), 146 miles from St. Louis; Cairo, 152; Jacksonville, 158; Macon (connects with Hannibal & St. Joseph Railway), 168; Atlanta, 181; La Plata, 190; Millard, 197; Kirksville, 204; Sublett's, 212; Green Top, 215; Queen City, 219; Glenwood, 227; Coatesville, 235; Moulton, 242; Westgrove, 248; Bloomfield, 256; Ottumwa (connects with Des Moines Valley and Burlington & Missouri River Railways), 276.

As far as *Moberly Junction*, this route is the same as ROUTE I. of MISSOURI.

Macon (169 miles). (*See* page 86.)

Ottumwa (276 miles). (*See* p. 80.)

ROUTE III.

ST. LOUIS TO BELMONT.

Via St. Louis & Iron Mountain Railway.

STATIONS.—St. Louis: Carondelet, 7 miles from St. Louis; Sulphur Springs, 24; Bailey, 33; De Soto, 43; Mineral Point (connects with Branch, 4 miles long, to Potosi), 61; Potosi, 65; Bismarck (Branch to Pilot Knob diverges), 76; Knob Lick, 95; Marquand, 118; Allenville, 147; Morley, 162; Charleston, 178; Belmont (connects by ferry

with Mobile & Alabama Railway at Columbus), 195.

This line of railway passes through a rich iron-region. The tourist will find a great variety of scenery, and much to interest him in a trip. We have already spoken (*see* page 229) of the vast mineral wealth of the country traversed by this road.

ROUTE IV.

FROM ST. LOUIS TO NEOSHO.

Via Atlantic & Pacific and South Pacific Railways.

STATIONS.—St. Louis: Pacific, 37 miles from St. Louis; Catawissa, 42; Calvey, 44; Moselle, 49; St. Clair, 56; Staunton, 66; Sullivan, 71; Bourbon, 78; Leasburg, 83; Cuba, 91; Knobview, 98; St. James, 104; Dillon, 109; Rolla, 114; York's, 124; Arlington, 126; Jerome, 127; Dixon, 128; Hancock, 144; Crocker, 150; Woodend, 156; Richland, 163; Stoutville, 171; Sleeper, 178; Lebanon (Junction Laclede & Fort Scott Railroad, 110 miles), 185; Brush Creek, 194; Conway, 202; Niangua, 210; Marshfield, 217; Bunker Hill, 223; Strafford, 231; Springfield, 241; Dorchester, 247; Brookline, 251; Plymouth, 261; Logan's, 266; Aurora, 273; Verona, 278; Billings, 285; Pierce City (Van Buren Branch, 125 miles), 291; Berwick, 296; Ritchieville, 302; Granby City, 307; Neosho, 315.

This road, generally spoken of as the *South Pacific Railway*, was commenced as the *Southwest Branch* of the *Missouri Pacific Railway*, and for many years has had to contend with delays and disappointments of all kinds. It is now in a prosperous condition and rapidly pushing westward. For the most part it traverses a beautiful, fertile, and salubrious country.

ROUTE V.

LEXINGTON TO ST. JOSEPH.

Via St. Joseph Division of North Missouri Railway.

STATIONS.—Lexington: North Lexington, Junction (connects with St. Louis & Kansas City Division), four miles from North Lexington; Richmond, 9; Vibbard, 22; Lathrop (connects with Came-

ron Branch of Hannibal & St. Joseph Railway), 38; Gower, 55; St. Joseph (connects with Kansas City, St. Joseph & Council Bluffs Railway), 76.

This short road is one of the two links connecting Sedalia and St. Joseph, and will eventually form a portion of a line of road running diagonally across the State, southeast of the latter of these cities.

Lexington, of which North Lexington is the station, is on the south bank of the Missouri River. It is the capital of Lafayette, one of the richest counties in the State. (For description, see page 176.)

Richmond (9 miles) is five miles beyond the crossing of the *Western Division* of this road, which has been described as ROUTE I. of MISSOURI. Richmond, the capital of Ray County, has a population of between 2,000 and 3,000, and is considered a place of some importance.

Lathrop (38 miles) is situated on a fertile prairie, admirably suited to the cultivation of fruits. It is the crossing of the *Cameron Branch* of the *Hannibal & St. Joseph Railway*.

St. Joseph (76 miles). (See page 86.)

ROUTE VI.

CAMERON TO KANSAS CITY.

Via Cameron & Kansas City Branch of Hannibal & St. Joseph Railway.

STATIONS.—Cameron, 172 miles from Quincy, Illinois; Lathrop, 15 miles from Cameron (connects with St. Joseph Branch of North Missouri Railway); Kearney, 29; Liberty, 39; Harlem, 51; Kansas City (connects with railways diverging), 53.

This road was completed in 1857, and as yet none of the towns along its line have attained any especial prominence. For 20 miles the line is through high, rolling prairie-lands, the road running on the west side of *Shoal Creek*. The rest of the line is through a timbered country.

Cameron (172 miles) from Quincy, Illinois, has been described in ROUTE XVI. (See page 86.)

Lathrop (15 miles). (See page 231.)

Harlem (51 miles) is an unimportant village.

Kansas City (53 miles) has been described in ROUTE XVI. (See page 89.)

ROUTE VII.

ST. JOSEPH TO HOPKINS.

Via Marysville Branch of Kansas City, St. Joseph & Council Bluffs Railway.

STATIONS.—St. Joseph: Savannah, 15 miles from St. Joseph; Barnard, 31; Maryville, 45; Hopkins (connects with stage-lines to Clarinda, Bedford, and places in Iowa), 61.

St. Joseph. (See page 86.)

Savannah (15 miles) is the capital of Andrew County. It is a small, but a pleasant and prosperous village.

Maryville (45 miles), the capital of Nodaway County, is at present a very small village; but, being on the line of a proposed road from Chillicothe to Council Bluffs, is destined to become a place of some importance.

Hopkins (61 miles) is only of importance as being the point of departure for several stage-lines. The road connects here with a branch of the Burlington & Missouri Railroad, which puts it in direct communication with Chicago.

ROUTE VIII.

SEDALIA, MO., TO FORT SCOTT, KANSAS.

Via Sedalia Division Missouri, Kansas & Texas Railway.

STATIONS.—Sedalia, 188 miles from St. Louis (connects with Pacific Railway of Missouri): Green Ridge, 12; Windsor, 21; Calhoun, 29; Clinton, 40; Montrose, 53; Appleton City, 59; Rockville, 67; Nevada, 90; Fort Scott (connects with Missouri River, Fort Scott & Gulf Railway), 111.

Sedalia, Mo., 188 miles from St. Louis, has been described in ROUTE XVII. (See page 88.)

Clinton, Mo. (40 miles), the capital of Henry County, called the "model town" of Western Missouri, is an enterprising place, having a population of about 3,500, lying in the heart of a fine agricultural region.

Nevada, Mo. (90 miles), the capi-

tal of Vernon County, is situated in an old and well-settled portion of the State. It was burned to the ground by the Confederates during the war, but has been rebuilt, and is now a handsome village of about 1,500 inhabitants.

Fort Scott, Kas. (111 miles), situated upon *Marmiton River*, an affluent of the *Osage River*, is the capital of Bourbon County. It was originally established as a military post, in 1842, and is still a great depot of army stores. In 1855 it was incorporated as a town, and is now one of the most prosperous places of Southern Kansas. It ranks as the fifth city of the State, having a population of over 6,000, and a trade that many an older place might envy. It has two

daily papers, six fine churches, a large woollen-mill, two banks, a foundery, two flouring-mills, hotels, public school buildings, and many other things that go to make up a healthy inland city. There is abundance of timber, water, and coal in the vicinity, and the farm-lands adjoining are unsurpassed in fertility. The neighborhood of Fort Scott was the scene of many thrilling adventures during the early history of Kansas, when the Border Ruffian troubles commenced. It was here that Montgomery gathered his men together preparatory to his raid into Missouri in 1857. Among the curiosities of Fort Scott is a well of fire, where the flames mount almost as high as a man's head. (See APPENDIX.)

KANSAS.

KANSAS, one of the most promising of the new States west of the Mississippi, is, in length, from east to west, about 420 miles, and in breadth, from north to south, 200 miles. It lies between latitude 37° and 40° north, and longitude 94° 40' and 102° west from Greenwich. The area is 81,318 square miles, or 52,043,520 acres, being considerably greater than the combined extent of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut. It is bounded eastward by Missouri, northward by Nebraska, westward by Colorado, and southward by New Mexico and Indian Territory. It was organized as a Territory May 29, 1854, and admitted as a State January 30, 1861.

The face of the country is beautiful beyond comparison. The prairies, though broad and expansive, stretching away miles in many places, seem never lonely or wearisome, being gently undulating, or more abruptly rolling; and, at the ascent of each new roll of land, the traveller finds himself in the midst of new loveliness. There are also high bluffs, usually at some little distance from the rivers, running through the entire length of the country, while ravines run from them to the rivers. These are, at some points, quite deep, and difficult to cross, and, to a traveller unacquainted with the coun-

try, somewhat vexatious, especially where the prairie-grass is as high as the head of a person seated in a carriage. There is little trouble, however, if travellers keep back from the water-courses, and near the high lands. These ravines are, in many instances, pictures of beauty, with tall, graceful trees, cotton-wood, black walnut, hickory, oak, elm, and linwood, standing near, while springs of pure cold water gush from the rock. The bluffs are of a kind unknown in form and appearance in any other portion of the West. At a little distance, a person can scarcely realize that Art had not added her finishing touches to a work which Nature had made singularly beautiful. Many of the bluffs appear like the cultivated grounds about fine old residences within the Eastern States, terraces rising above terrace with great regularity; while others look like forts in the distance. In the eastern part of the State, most of the timber is upon the rivers and creeks; though there are in some places most delightful spots, high hills, crowned with a heavy growth of trees, and deep vales, where rippling waters gush amid a dense shade of flowering shrubbery.

Higher than the bluffs are natural mounds, which also have about them the look of art. They rise to such a height as

to be seen at a great distance, and add peculiar beauty to the whole appearance of the country. From the summit of these the prospect is almost unlimited in extent, and unrivalled in beauty. The prairie, for miles, with its gentle undulations, lies before the eye. Rivers glistening in the sunlight, flow on between banks crowned with tall trees; beyond these, other high points arise. Trees are scattered here and there, like old orchards, and cattle in large numbers are grazing upon the hill-side and in the valleys, giving to all the look of cultivation and home-life. It is, indeed, difficult to realize that for thousands of years this country has been a waste, uncultivated and solitary, and that but a comparatively short time has elapsed since the white settler has sought here for a home.

Climate.—Professor Swallow, in his geological report, says: "The climate of Kansas is temperate and healthful. As indicated by our position, and clearly proved by a long series of meteorological observations at our military posts, the summers are long and temperate, and the winters are short, mild, and dry, varied by a few cold days. But few countries have climates better adapted to health, and the luxuriant growth of the staple products of the temperate zone." During the winter season of 1870 no feeding of stock was necessary, the thermometer varying in February from 60° to 75°, and there was no frost in the ground. The clear, dry atmosphere, and gentle, health-giving breezes, are favorable to out-door pursuits and pleasures. The peculiar clearness of the atmosphere can hardly be imagined by a non-resident. For miles a person can clearly distinguish objects which at the same distance in other parts of the country he could not see at all.

Stock, Fruit, etc.—Kansas is unsurpassed as a grazing region, and promises to be the greatest stock-raising State of the West. Fruit can be easily grown, and can be sold at great profit. At the National Pomological Congress, held at Philadelphia, September 16, 1869, the gold medal was awarded to Kansas for the best fruit in the Union. The principal agricultural productions are corn,

wheat, rye, oats, tobacco, buckwheat, hemp, and cotton.

Population.—The increase of population in Kansas has been wonderful. On its first enumeration in 1860, it was 107,206; in 1870 it was 379,497, an increase of nearly 236 per cent.

Educational.—Besides the public schools, Kansas has a State University, an Agricultural College, a State Normal School, a Blind Asylum, and a Deaf and Dumb Asylum. The Methodist Church have the Baker University; the Congregationalists, Washburn College; the United Brethren, Lane University; the Episcopalians, a female seminary; the New-School Presbyterians, Wetmore Institute; the Baptists, Ottawa University; the Old-School Presbyterians, Highland University, and the Geneva Institute. The Christian denomination is establishing a college at Ottumwa. The Catholics have two colleges, male and female, at Leavenworth, both large institutions; they also have schools at St. Mary's Mission, at St. Bridget, and at the Osage Mission.

Minerals.—Coal and salt are very abundant, being found in all parts of the State, and almost everywhere are inexhaustible supplies of rock, principally sandstone and limestone. In the western portion of Kansas there are rich quarries of the beautiful white magnesia limestone. Lead is found in the southeastern portion of the State.

RIVERS, RAILWAYS, ETC.

The most important rivers in the State are the Kansas, Republican, Smoky Hill, Neosho, Arkansas, Solomon, Osage, Big Blue, Verdigris, Great Nemaha, Cottonwood, Saline, Stranger, Grasshopper, Pottawatomie, Marmaton, Little Arkansas, Wakarusa, and Cimeron, all of which contain a great variety of fish. The valleys of these streams are very rich.

The Kansas River, sometimes called the "Kaw," the largest stream of this region, excepting the Missouri, which washes its northeastern boundary, is formed by the Republican and the Smoky Hill Forks which rise in the Rocky Mountains, and unite their waters at Fort Riley. The length of the Kansas, including its branches, is nearly 1,000 miles. Its course is through a productive valley

region or plain, covered with forest-trees, and varied here and there with picturesque bluffs and hills. The Kansas River is a tributary of the Missouri, and steamboats ascend, in good stages of water, from its mouth, 120 miles to Fort Riley.

The Arkansas River has nearly half its course within the borders of Kansas.

The Osage River rises south of the Kansas, and flows eastward nearly 500 miles to the Missouri, which it enters ten miles below Jefferson City.

It is doubtful whether any State in the Union has shown such energy and enterprise as Kansas in the construction of railroads. There are now about 1,500 miles of railway in operation, penetrating the rich agricultural regions in every direction.

ROUTE I.

KANSAS CITY TO BAXTER SPRINGS.

Via Missouri River, Fort Scott & Gulf Railway.

STATIONS.—Kansas City (connects with Santa Fé Division of Leavenworth, Lawrence & Galveston Railway); Shawnee (connects with Sedalia Division Missouri, Kansas & Texas Railway), 9 miles; Lenexa, 14; Olathe, 21; Ocheltree, 28; Spring Hill, 29; Hillsdale, 35; Paola, 42; Fontana, 53; Les Cygnes, 61; Barnard, 67; Pleasanton, 73; Prescott, 81; Osaga, 85; Fort Scott (connects with the Sedalia Division of Missouri, Kansas & Texas Railway), 98; Godfrey, 104; Pawnee, 110; Drywood, 116; Girard, 124; Limestone, 129; Cherokee, 135; Coalfield, 140; Columbus, 147; Neutral, 153; Baxter, 159.

Kansas City. (See page 89.)

Olathe (21 miles), the capital of Johnson County, is in the midst of a thickly-settled farming country, and connects with the *Santa Fé Division of the Leavenworth, Lawrence & Galveston Railway*. It is a thriving place, with a population of about 3,000. It is the seat of the State Deaf and Dumb Asylum.

Paola (42 miles), the capital of Miami County, is one of the most flourishing and beautiful towns in the State. The first building was erected in 1857, and the population is now nearly 4,000. Coal

and timber, the latter in abundance, are found in the vicinity. Seven miles southwest of this place is *Ossawatimic*, the old home of John Brown (whose soul is supposed to be still "marching on"), and the seat of the State Insane Asylum.

Fontana (53 miles) is a pretty village in Miami County, of about 500 inhabitants. The bergh is owned and "run" by William Toms, an Englishman. It has a newspaper edited by Mr. Vissher, for many years amanuensis to the late George D. Prentice.

Les Cygnes (61 miles) is a beautiful prairie town, of about 600 inhabitants, situated on the northern border of Linn County. The land on which the place is built formerly belonged to Indian heirs. The first house was erected in the fall of 1869. The country in the neighborhood is fertile and well-wooded. Like all new Kansas towns, Les Cygnes has an organ, in the way of a newspaper.

Pleasanton (73 miles), another prosperous town in Linn County, is named after General Pleasanton, who at this place overtook General Price, on his retreat in 1864, and captured many prisoners, among whom was General Marauduke. In the summer of 1869 the town site was a beautiful field of waving corn. It now has a population of 1,000 inhabitants, has been voted the county-seat, publishes a good paper, and has a brisk local trade. The neighboring mounds, hills, and woodlands in the distance, render the locality quite picturesque. Coal is found in large quantities in the vicinity.

Prescott (81 miles), a new town, is the centre of a region with rich coal, of which large quantities are shipped to Kansas City.

Fort Scott (98 miles). (See page 232.)

Girard (124 miles), the capital of Crawford County, is situated in the centre of a great expanse of prairie, on which neither leaf nor shrub is to be seen. It is almost in the centre of the Neutral Lands, and many of the "Leaguers" have gone into business there. It has a newspaper. The population is about 600.

Columbus (147 miles) is a promising young town of about 800 inhabitants. The portion of the Neutral Lands in

which it is situated is well adapted for agricultural purposes.

Baxter Springs (159 miles), the present terminus of the road, and the capital of Cherokee County, is pleasantly situated, and well supplied with timber and water. It is just north of the line of the rich Cherokee country, which it is to be hoped that a railway to Texas will soon open to civilization. The resident population is about 1,000. Baxter Springs is a great shipping-point for Texas cattle, and during the season is crowded with drovers. A daily coach leaves this point for Fort Gibson, and connects with the lines which run to Texas.

ROUTE II.

KANSAS CITY TO ATCHISON AND WATERVILLE.

Via Kansas City, St. Joseph & Council Bluffs Railway and Central Branch of Union Pacific Railway.

STATIONS ON KANSAS CITY, ST. JOSEPH & COUNCIL BLUFFS RAILWAY.—Kansas City: Harlem, 1 mile from Kansas City; Parkville, 10; East Leavenworth (connects with Leavenworth Branch of Kansas Pacific Railway), 25; Beverly, 30; Weston, 33; Winthrop (connects with ferry for Atchison, connecting there with Central Branch of Union Pacific Railway), 50.

STATIONS ON CENTRAL BRANCH OF UNION PACIFIC RAILWAY.—Atchison, 51 miles from Kansas City; Farmington, 13 miles from Atchison; Monrovia, 15; Effingham, 18; Muscotah, 25; Whiting, 31; Netawaka, 37; Wetmore, 42; Sherman, 49; Corning, 56; Centralia, 62; Vermilion, 70; Frankfort, 79; Barrett's, 82; Elizabeth, 85; Irving, 90; Blue Rapids, 95; Waterville, 100.

Kansas City, Mo. (See page 89.)

Parkville, Mo. (10 miles), is upon the eastern bank of the *Missouri River*. It was founded in 1844, and is chiefly built of limestone, there being fine quarries in the neighborhood.

East Leavenworth, Mo. (25 miles), is a small place connecting by ferry with the *Leavenworth Branch* of the *Kansas Pacific Railway*.

Weston, Mo. (33 miles), picturesquely situated upon the *Missouri River*, was at one time a favorite starting-point with emigrants for California. It is a prosperous incorporated city. At

Winthrop, Mo. (50 miles), passengers for *Atchison* cross the river by ferry, which connects with the *Central Branch* of the *Union Pacific Railway*.

ROUTE III.

LEAVENWORTH TO PARKER.

Via Leavenworth & Lawrence Branch of Kansas Pacific Railway, and Leavenworth, Lawrence & Galveston Railway.

STATIONS ON LEAVENWORTH & LAWRENCE BRANCH OF KANSAS PACIFIC RAILWAY.—Leavenworth: Leavenworth Junction, 4 miles; Fairmount, 10; Big Stranger, 16; Reno, 26; Leavenworth & Lawrence Junction (connects with Kansas Pacific Railway), 32; Lawrence (connects with Leavenworth, Lawrence & Galveston Railway), 34.

STATIONS ON LEAVENWORTH, LAWRENCE & GALVESTON RAILWAY.—Lawrence: Sibley, 6 miles; Vinland, 9; Baldwin City, 14; Prairie City, 16; Norwood, 20; Kansas City & Santa Fé Junction, 25; Ottawa (connects with Kansas City & Santa Fé Division), 27 miles from Leavenworth; Princeton, 35; Richmond, 41; Garnett, 51; Welda, 59; Divide, 67; Carlyle, 73; Iola, 78; Humboldt (connects with Missouri, Kansas & Texas Railway), 86; Neosho, 91; Tioga and Chicago, 94; Earleton, 101; Thayer, 108; Cherryvale, 124; Parker, 144.

Lawrence. (See page 90.)

Ottawa (27 miles), the capital of Franklin County, is the largest and most flourishing town on this line of road. It is situated on the *Marais des Cygnes River*, on a fine prairie eminence, with plenty of woodland in the neighborhood. A suspension-bridge, the only one in the State, spans the river at this point. The *Ottawa University* is located here, upon a square mile of highly-cultivated land. The first house was put up in 1864, and the population is now about 3,500. Ottawa is the present terminus of the *Kansas City & Santa Fé Railway*.

Garnett, Kas. (51 miles), the capital of Anderson County, and a grow-

ing, busy place, of about 2,500 inhabitants, is situated on a rolling prairie, in an excellent country that is rapidly filling up.

Iola (78 miles) is a pleasant town of about 1,000 inhabitants, situated in the midst of a fine agricultural region.

Humboldt (86 miles), the capital of Allen County, and a bustling little town, connects with the *Leavenworth, Lawrence & Galveston, and Missouri, Kansas & Texas Railways*, the one coming in on the west and the other on the east. There is a U. S. land-office at this place. The population of Humboldt is about 3,000. The lands in the neighborhood are remarkably fertile.

Thayer (108 miles) is a prosperous little place, and

Parker (144 miles) is the present terminus of the road.

ROUTE IV.

TOPEKA TO EMPORIA.

Via Atchison, Topeka & Santa Fé Railway.

STATIONS.—North Topeka: Topeka, 1 mile from North Topeka; Challenders, 6; Cottonwood Grove, 9; Wakarusa, 13; Carbondale, 18; Gables, 22; Burlingame, 27; Peterton, 31; Osage City, 35; Arvonia, 42; Reading, 46; Horton, 54; Emporia (connects with Missouri, Kansas & Texas Railway), 61; Cottonwood, 136; Florence, 156; Newton, 185; Wichita, 212; Dodge City, 352; Sargent, 467.

North Topeka, 67 miles from Kansas City, is the point at which the road connects with the *Kansas Pacific Railway*.

Topeka (1 mile). (*See* page 90.)

Burlingame (27 miles), the capital of Osage County, is a pretty and rapidly-improving town. It has a population of about 800. Coal is plentiful in the neighborhood.

Emporia (61 miles), the capital of Lyon County, is one of the most important places in Southern Kansas, and is the seat of the *State Normal School*. It connects here with the *Missouri, Kansas & Texas Railway*. The population is about 4,000. It has two papers—one a daily. Emporia has been settled about twelve years, and its fine buildings and wide

streets make it particularly attractive to the stranger. The road is now completed upward of 400 miles west of Emporia, traversing a rich but rather monotonous range of country. Sargent, the present terminus, is an unimportant town.

ROUTE V.

JUNCTION CITY TO CHETOPA.

Via Neosho Division of the Missouri, Kansas & Texas Railway.

STATIONS.—Junction City: Skiddy, 13 miles; Parker's, 25; Council Grove, 37; Rock Creek, 45; Americus, 52; Emporia (connects with Atchison, Topeka & Santa Fé Railway), 61; Neosho Rapids, 69; Hartford, 74; Ottumwa, 82; Burlington, 89; Leroy, 103; Neosho Falls, 107; Humboldt (connects with Leavenworth, Lawrence & Galveston Railway), 122; New Chicago, 132; Ladore, 152; Dayton, 161; Oswego, 171; Chetopa, 180.

Junction City, Kas. (138 miles from Kansas City). (*See* page 91.)

Council Grove (37 miles), an old town, the county-seat of Morris County, is situated on the headwaters of the Neosho, surrounded by a good agricultural district. In 1848, population about 800.

Emporia (61 miles from Junction City). (*See* page 236.)

Burlington (89 miles), the capital of Coffey County, is a handsome and flourishing little place, of about 1,500 inhabitants, upon the banks of the Neosho River, whence it derives the finest water-power in the State. It is expected that the town will be one of the stations on the *Kansas City & Santa Fé Railway*, a line now completed as far as Ottawa, the capital of Franklin County. The country in the neighborhood of Burlington is well settled.

Leroy (103 miles) is a pretty village of about 1,000 inhabitants. The country around is pleasingly diversified by prairie, woodland, and stream, and the many farm-houses, which meet the eye in all directions, give it a homelike appearance.

Neosho Falls (107 miles), the capital of Woodson County, is named after a water-fall in the locality. The

scenery in the neighborhood is wild and picturesque, and the country well settled.

Humboldt (122 miles) has been described in ROUTE III. of KANSAS.

New Chicago (132 miles) is a thriving town at the junction of the *Missouri, Kansas & Texas Railway* with the *Leavenworth, Lawrence & Galveston Railway*.

Oswego (171 miles), the capital of Labette County, is a prosperous place, of about 1,200 population. It is situated on high prairie-land in a sparsely-settled region.

Chetopa (180 miles), situated on the banks of the Neosho, is a pretty and

rapidly-growing place, of about 1,500 inhabitants. The country around is becoming well settled.

ROUTE VI.

KANSAS CITY TO OTTAWA.

STATIONS.—Kansas City: Olathe, 21 miles; Gardner, 29; Edgerton, 35; Wellsville, 40; Le Loup, 45; Kansas City & Santa Fé Junction, 51; Ottawa, 53.

Olathe (21 miles) has been described in ROUTE I. of KANSAS.

Ottawa (53 miles) has been described in ROUTE III. of KANSAS.

NEBRASKA.

NEBRASKA lies between 40° and 43° north latitude, and embraces an area of 76,000 square miles. It is bounded on the south by Kansas, on the east by the Missouri River, on the north by Dakota, and on the west by the Territory of Wyoming.

The history of this young State may be thus briefly stated: Up to 1712 Nebraska formed a part of the great grant of the Mississippi Valley to Crozat, and was part of the territory included in Law's Mississippi scheme. As a portion of the Louisiana purchase it came into the possession of the United States in 1803. The first explorers of the territory, of whom we have any authentic account, were Lewis and Clark, who, after wintering at Fort Mandan (1804-'5), crossed the Rocky Mountains to Oregon. In 1854 the famous Nebraska Bill, repealing the Missouri Compromise, and limiting the extension of slavery, was passed; and on May 30th, of the same year, the Territory was organized. It was, after much discussion, admitted as a State, January, 1867. The adjoining Territory of Dakota was formed out of Nebraska in 1861.

In Nebraska there are no mountain districts, and little rough or broken land. The surface is one of regular undulation, rising gradually as it extends westward from the Missouri River. The Missouri—at low water—at the southern bound-

ary, is about 780 feet above the sea; at the northeastern angle, at Sioux City, 1,065 feet; at the mouth of the Platte, 920 feet; Lincoln, the capital, is 1,622 feet; Fort Kearney, 2,225 feet. At the western boundary the Platte is about 4,270 feet above the sea.

Along the Missouri the bluffs rise with some abruptness to the height of fifty to one hundred feet. From their tops the prairie extends westward in long swells, seldom so broken as to interfere with cultivation. The country becomes less and less rolling as it recedes from the river, and at a distance of 100 to 150 miles from it the uplands spread out into wide, flat prairies, varied only by the valleys and strips of bottom-lands bordering the larger streams. Along the Missouri, the bluffs are at most points easily passed by the wagon, while along the interior streams they are of less height and of gentle ascent. The numerous streams throughout the State are bordered by wide and fertile strips of bottom-land, which they traverse in deep-cut channels, seldom, and only at long intervals, overflowing.

The surface is in general free from boulders, but they are, however, found at a few points in the sharp "breaks," or ridges, about the heads of the streams. A well-defined line of quarries and granite, gravel and boulders, is found along

the general course of the Blue River, stretching as far to the northwest, beyond the Platte, as the country has been explored.

The climate of Nebraska is not surpassed in the latitude in which it lies. It is dry and health-giving. The winter is short, mild, and open, the sun seldom clouded, very little rain or snow falls, and the latter rarely remains on the ground but a few days.

The soil is a vegetable mould charged with lime, and is from eighteen inches to two feet in depth—accumulated from the decayed vegetation of centuries. It is a light, rich soil, black and loamy, but never clammy or lumpy, and more resembles a compost of artificially-prepared garden-mould than a wild and virgin soil of Nature's own compounding. It rests upon a subsoil of porous, yellowish clay, which has the property of receiving and holding water like a sponge.

By climate and soil Nebraska is well adapted to the culture of the cereals, the growth of root-crops, or the raising of stock. In the production of small grains it especially excels. As shown by the Report of the Commissioner of Agriculture, the average yield of wheat is 17.7 bushels per acre.

The population of Nebraska in 1870 was 123,000; the total valuation of real estate and personal property in the State is given by the census as \$55,719,432, against \$7,426,949 in 1860.

RIVERS.

The Missouri. (*See LAKE AND RIVER TOUR, No. III.*)

The Platte flows entirely across the State from west to east, dividing it into two nearly equal parts. The valley of the Platte is traversed through its whole extent by the Union Pacific Railway. To the distance of 100 miles from the Missouri, the public lands are all taken up. The principal tributaries from the north are the *Loupe Fork*, the valley of which is not yet open to settlement, and the *Elkhorn*. The latter stream rises in the northern part of the State, and flows southeasterly for 100 miles, through a valley well timbered, and watered by many tributary streams. The Elkhorn empties into the Platte about 50

miles above its mouth. A railroad is now being opened through this valley, 10 miles of which, northward from Fremont, are now completed.

The principal tributary from the south is the *Salt*, which rises in the southwestern part of Lancaster County, and, flowing through a very fertile valley, passes the Great Salt Basin and the State capital, and falls into the Platte about 30 miles above its mouth. The Salt receives many tributary streams which water fertile valleys. The valley of the Salt is rapidly settling up, and is destined to be one of the wealthiest and most populous portions of the State.

The Niobrara, *L'Eau qui Court*, or swift-running water, forms a part of the northern boundary of the State. The valley is the smallest and least known of the three principal divisions named; only a small portion of it is open to settlement.

The Republican, after the Platte, is the largest stream in the State. It flows through the southwestern counties, into Kansas, about 140 miles west of the Missouri. The upper part of the Republican Valley is not yet fully surveyed and open to settlement. In both Kansas and Nebraska settlements have extended westward upon other streams farther than upon the Republican.

The *Big Blue* and the *Little Blue* are streams of some importance, watering what is considered by many the most beautiful portion of the State. They rise in the central part of Nebraska, near the Platte, and flow southeasterly, uniting in Kansas. Other rivers worthy of mention are the *Great Nemaha* and the *Little Nemaha*.

RAILWAYS.

The Union Pacific Railway, which traverses the State, is fully described in THROUGH ROUTE XVIII.

The following roads are constructing:

The Omaha & Northwestern (from Omaha to West Point, thence up the Elkhorn to the mouth of the Niobrara) looks to an extension and junction with the Northern Pacific, to bringing the trade of the Elkhorn Valley and a share of the trade of Montana and the Northwestern Territories to Omaha, where it properly belongs.

The Elkhorn Valley Railway (from Fremont on the Union Pacific, up the Elkhorn to the mouth of the Niobrara) opens to market the lovely valley of the Elkhorn. A southern extension of this road to Lincoln is contemplated.

The Burlington & Missouri Railway in Nebraska (from Plattsmouth by Lincoln to a junction with the Union Pacific, near Fort Kearney) is finished to Fort Kearney, where a junction is made with the Pacific Railroad. From Plattsmouth its connections are east, north, and south, over the roads centring there.

The Midland Pacific, from Nebraska City through Lincoln, to a junction with the Union Pacific road near Fort Kearney, or over a more southerly line to Denver. Its connection at Nebraska City is over the St. Joseph & Council Bluffs, or the Burlington & Missouri. The State Line road, now being built across the State of Iowa, will be its principal connection east when finished. This is a link in the transcontinental line of road now being developed under the influence of the Pennsylvania Central Railway. Another important connection will be the Clinton & Nebraska City Railway, now being pushed forward from Clinton, Iowa.

ROUTE I.

OMAHA TO LINCOLN.

Via Omaha & Southwestern and Burlington & Missouri Railways.

STATIONS.—Omaha: La Platte, 16 miles; Omaha Junction (connects by ferry with Burlington & Missouri Railway in Nebraska, over which trains run to Lincoln), 21; Lincoln, 67.

Omaha Junction (21 miles). (See page 95.)

Lincoln (67 miles), the capital of the State, is a handsome place, centrally located in the beautiful county of Lancaster. Three years ago, where the town stands, there were but three small houses, and the country for many miles around was little else than a vast Indian hunting-ground. Now every foot of available government land in the county is taken, and is being rapidly improved. The population in 1871 was about 3,000, having doubled in one year. Besides

the *State House*, a handsome edifice of white limestone now building at a cost of \$100,000, there are located in this place most of the State institutions, among which are the *State University and Agricultural College*, a fine brick building, to cost \$152,000, the Asylum for the Insane, and the Penitentiary. Lincoln promises to be an important railroad centre. One railway from Plattsmouth, on the Missouri, through this city, is finished to Fort Kearney on the Union Pacific Railroad, across the continent. Another, from Nebraska City to Denver, is progressing, and will lay its iron to Lincoln in a short time.

ROUTE II.

RULO TO PAWNEE CITY.

Via Burlington, Rulo & Southwestern Railway.

This road is projected to run across the southern counties to Denver. The route beyond Pawnee City is not fully determined. It will probably go to Beatrice, and thence, perhaps, up the Republican River. This part of the State is in great need of a railway.

Rulo is an active town on the Missouri River.

Pawnee City, the capital of Pawnee County, is well located, in the neighborhood of coal and good water-power, and plenty of timber.

ROUTE III.

FREMONT TO BLAIR.

Via Fremont & Blair Railway.

This road is a cut-off from the Chicago & Northwestern at Blair to the Union Pacific at Fremont.

Fremont, a promising town of about 4,000 inhabitants, is the outlet of trade for the beautiful valley of the Elkhorn. It is at the junction with the *Union Pacific* and the *Elkhorn Valley Railways*. (See page 97.)

Blair (25 miles) is an active town on the Missouri River.

Nebraska City, the second town of the State, is on the west bank of the Missouri, 86 miles south of Omaha by

river. It is prettily situated on rising ground, and commands some fine views. Before the building of the Union Pacific Railway it was the principal starting-point of the overland travel and freighting business. From the loss of this trade Nebraska City suffered severely, but the agricultural development of the surrounding country and the railway interests here centring have recently caused a revival, and healthy and rapid growth of the town. A low estimate of its present population is 8,000. The city is the seat of the Episcopal bishop of the diocese, and contains fine churches, school-houses, and public buildings. It is the starting-point of the *Midland Pacific Railway* to Fort Kearney, which is one of the short-line Pacific connections now being developed under the control and influence of the Pennsylvania Central Railway Co. The *Nebraska City & Southwestern*, and the *Nebraska City & Northwestern*, are now projected by its business enterprise, and will be built to open, develop, and make tributary the interior of the State. The *Burlington & Missouri River Railway*, in Iowa, has completed a branch from Red Oak to this place. The Iowa State Line, and the Clinton (Iowa) & Nebraska City, are now being built, and will soon be completed. (See page 178.)

Plattsmouth, the capital of Cass County, is on the Missouri, $1\frac{1}{2}$ mile below the mouth of the Platte, and 38 miles, by water, south of Omaha. It has a good landing, and a population of about 3,000. The *Burlington & Missouri Railway* crosses the Missouri at this place. A railroad bridge is to be built across the river.

Falls City, on the *Great Nemaha*, and on the line of the Burlington, Southern, Nemaha Valley & Loup Fork Railways, is a thriving young city of about 1,000 population. It is in the centre of an unsurpassed agricultural region, well supplied with timber, coal, and good water-power.

Beatrice, an interior town, on the Little Blue River, promises to be a place of some importance, being situated in the midst of a fertile farming region, where there is abundance of excellent building-stone, fine magnesian limestone, and very good water-power. It is on the line of the Burlington & Missouri Railway in Nebraska.

Ashland (30 miles from Plattsmouth) is a prosperous town, of about 1,000 population, surrounded by a rich and rapidly-improving agricultural country. Magnesian limestone of a superior quality is found in abundance in the neighborhood.

DAKOTA.

DAKOTA was organized as a Territory March 2, 1861. It is situated directly west of Minnesota and on the northwestern part of Iowa. It has absorbed much of the western part of the old Territory of Minnesota, and of the eastern part of Nebraska. Its length from east to west is about 750 miles, and its area 152,000 square miles. The western part of the Territory is very mountainous. The Rocky Mountain range extends along the western boundary. The Black Hills, which belong to the Rocky Mountain range, traverse the more central and southern portion. Fremont's Peak and Laramie Peak belong to this range. The principal rivers are the Missouri, the Red

River of the North, and the North Fork of the Platte. The *Missouri* washes the eastern and southern border, and drains a large portion of the Territory. (See LAKE AND RIVER TOUR, No. III.) The climate of Dakota is healthful and genial, and the soil is well suited to agricultural and grazing purposes, being rich in the yield of grain, fruits, and vegetables. The first white settlements were made in 1858-'59, at Sioux Falls, Vermilion, and Yankton. The Yankton and the Ponca Indians, also the Winnebago, the Sioux, and the Santee tribes (recently removed from Minnesota), have extensive reservations on the Missouri River and on the Niobrara above Yankton. They

are reported to be partially domesticated, and to be devoting themselves to agriculture and stock-raising. Dakota has numerous lakes, the largest of which is *Winni-Waken* or Devil Lake. The principal avenues of travel to and through the Territory are by boat up the Missouri River to Yankton, or by the overland mail line to Fort Laramie. The *Northern Pacific Railway* traverses the northern portion of Dakota, and will greatly develop the resources of the Territory. It has now reached Bismarck, on the Missouri River.

The population of Dakota is given by the census of 1870 as 14,181. The total valuation of real estate and personal property is put at \$2,814,629.

Yankton, the capital, is situated on the west bank of the Missouri, 7 miles

above the mouth of the Dakota River, and 65 miles north of the Iowa line. Population about 1,200. (See page 178.)

The other principal settlements are *Big Sioux Point*, *Elk Point*, *Maley Creek*, *Vermilion*, *Bonhomme*, *Greenwood*, and *Fort Randall*. *Fort Abercrombie* is on the Red River of the North, near the Minnesota line.

Bismarck is where the *Northern Pacific Railroad* crosses the Missouri River, and for this reason will probably become the principal commercial point in the Territory. It will be the starting-point for steamers both up and down the river.

Vermilion is on the Missouri River, 30 miles southeast of Yankton, near the mouth of the Big Sioux River. At this place is located the United States land-office for the Territory.

COLORADO.

COLORADO was organized as a Territory on March 2, 1861. It has an area of 106,475 square miles. It lies directly west of Kansas, and comprises the western part of the old Territory of Kansas, and portions of the former Territories of Nebraska, New Mexico, and Utah. But little was known of this region till 1858, when mining operations were first commenced. Of the progress that has been made in the mining districts since that time we shall have occasion to speak presently.

As yet, the cultivation of the soil in Colorado is principally confined to the valleys near the streams. The crops of 1867 were large enough to supply the wants of the Territory, and since that time it has been exporting grain and produce to the Missouri River towns, to the military stations on the Union and Kansas Pacific Railways, and to the mining regions of Wyoming and Montana. During the fall of 1870, over 1,000 barrels of Colorado flour were shipped to Kansas City and St. Louis. It is considered of better quality than that obtained from Southern Illinois wheat. Dairy products are also important in yield and quality. Colorado ranch butter and cheese are premium products,

and bring from five to fifteen cents a pound more than any other. The Territory is now self-supplying in the whole range of agriculture, except in fruit, which California and Utah provide.

Stock-raising is an important industry in Colorado. The best grazing-lands are along the South Platte and its mountain tributaries, and the Arkansas. The latter courses through Southern Colorado, and along its valley the great herds are mostly pastured. They are driven north in the spring and shipped to Chicago and St. Louis for beef. A late estimate shows that there are now in the Territory about 250,000 head of cattle and 75,000 sheep. During the fall of 1870 large droves were shipped East. A new business has lately been commenced in Denver, that of shipping dressed beef to Chicago. About two car-loads of wool and ten of hides are shipped east from Denver every month.

Timber is found only in small quantities in the Territory.

Population and Wealth.—In 1860 the population of Colorado was 34,277; and in 1870, 39,706. There were times in 1861-'62 when it reached 60,000. This decrease is not uncommon in mining Territories. It speaks of an unsettled

population, swelling in at the reports of new discoveries, and surging out for better pay elsewhere, carrying with it the growth of previous years.

The total valuation of real estate and personal property in the Territory is given by the census of 1870 as \$17,022,686. Colorado has 365 miles of railroad within its borders, of which 228 miles were constructed in 1870. Its mining products for that year foot up \$3,750,000, its crops \$4,551,000, and its manufactures \$1,225,000.

The *Arkansas River* and the *South Fork of the Platte*, which both rise near the centre of the Territory, drain the eastern part of Colorado. The *Yampa* or *Bear River*, the *Bunkara*, and the *Gunnison*, flow from the western slopes of the Rocky Mountains. The *Rio Grande* rises in the Territory, and flows southward into the Gulf of Mexico. The *Bunkara* and the *Gunnison* Rivers form the *Grand River*, which is a branch of the *Colorado*.

THE MINING DISTRICTS.

Gold and silver are found in large quantities in the central parts of Colorado. A strip of fifty miles wide along the slope, from the northern to the southern border of the Territory, will take in about all the peopled and producing parts. All the important mineral developments, the best farms, and the principal towns, lie within this belt. Here are Denver, Central City, Georgetown, Black Hawk, Nevada, Idaho, Cariboo, Boulder, Golden, Pueblo, Colorado City, Greeley, Trinidad, and Cañon City. The *South Platte*, with its tributaries, the Big Thompson, Cache la Poudre, Cherry Creek, and the *Arkansas*, with its numerous branches, are more farmed within this area than over all the rest of their great extent. The mining-regions are situated, with hardly an exception, in the midst of the most beautiful scenery, and the industries and population of these parts have given birth to mountain towns numbering thousands of inhabitants, and remarkable for picturesque beauty. To many of these centres, situated high up among the fastnesses of the range, narrow-gauge railroads now extend, and others are in

process of construction. Concord stages connect with the roads to points of interest. The traveller now has choice of several routes. He may take the railroad to Boulder Creek and Boulder City on the north, and view the mining camps of that fast-expanding quarter. He may take another railway trip to Golden City, a growing town lying nearly due west at the foot of the mountains, and thence by rail up the North Clear Creek Valley to Black Hawk and Central City. Another stage route for the south strikes into the mountains on what is called the Mount Vernon road; thence into the South Clear Creek Valley below Idaho; thence up the Clear Creek Valley to Georgetown, the centre of the silver-mining region. Still farther south, where Bear Creek and Turkey Creek issue from the mountains, is the road that leads up into the South Park country. The *placer mines of Summit County* have grown into importance, and their annual yield is placed at \$500,000. The new *Grand Island District*, of which Cariboo is the capital, lying in the edge of Boulder County, within six months of its discovery yielded \$275,000. The *South Park mines* have turned out richly. The receipts at the Branch Mint, at Denver, from all the mines of the Territory, for the year ending December 1, 1870, were \$1,125,000.

Coal and iron mining has become of late an important interest in the Territory. Between the South Boulder and Golden the coal-seams cover an area of twenty square miles. Openings have been made in many places, always revealing workable coal in beds from five to sixteen feet in thickness. Throughout the Boulder coal-region are valuable deposits of iron-ore, consisting of hydrates and red hematites, free from phosphorus, and of the purest kinds, well adapted to the manufacture of steel. The quantity of surface ore is estimated at one hundred thousand tons. Two and one-third tons of roasted ore produce one ton of iron. The locality where these iron-mines are found is convenient for limestone (used as a flux in smelting the ores), sand for moulding, grit-stones for building purposes, and fire-clay. The coal is comparatively free from sulphur. Coking-works have been established near one of the banks, and

at another experiments have been made in smelting the iron-ore, which is found to yield from seventy to eighty per cent. of pure metal. The experiments thus far made show that, for the production of one ton of pig-iron, three tons of the ore, two hundred pounds of limestone, and from one hundred and thirty to one and fifty bushels of clear coal are required. It is estimated that the area over which these iron deposits abound is fifty square miles.

THE GREAT NATURAL PARKS.

The surface of the Territory is generally mountainous, but in the eastern and northwestern parts are elevated plains. The spurs or branches of the Rocky Mountains enclose large fertile valleys, known as the North Park, Middle Park, South Park, and San Luis Park.

North Park, lying in the extreme northern part of the Territory, has been less explored and settled than the rest, owing to its remote situation and colder climate. It offers, for these reasons, the first attractions to the sportsman and adventurer; its streams are stocked with fish, and its forests and hill-sides abound with bears, deer, wolves, and antelopes.

Middle Park is directly south of North Park, from which it is separated by one of the cross-chains of the great mountain labyrinth. It is 50 miles wide by 70 miles long. The snow-range or continental divide sweeps around on its eastern side, but it is completely encircled by majestic mountains. Long's Peak, Gray's Peak, and Mount Lincoln, from 13,000 to 14,500 feet high, stand sentinels about it. It is drained by Blue River and the head-waters of Grand River, flowing westward to the Colorado. Middle Park is really made up of a series of smaller parks, each somewhat independent of the others. The portions not covered by forests expand into broad, open meadows, the grasses of which are interspersed with wild-flowers of nearly every hue.

South Park, the best known and probably the most beautiful of all the parks, lies below. The continental divide embraces it on the west. It is 60 miles long and 30 wide, and, like the

Middle Park, surrounded on all sides by gigantic ranges of mountains, whose culminating crests tower above the line of perpetual snow. It is well watered and timbered; the climate is delightful, and the scenery magnificent. Good roads and trails traverse it in several directions.

San Luis Park, in Southern Colorado, is the largest. It embraces an area of nearly eighteen thousand square miles—about twice the size of New Hampshire. On the east it is flanked by the *Cordilleras*, on the west by the *Sierra Mimbres*, two vast and lofty mountain-chains. It is watered by thirty-five streams descending from the encircling snow-crests. Nineteen of these flow into *San Luis Lake*, a beautiful sheet of water near the centre of the park, while the others discharge their waters into the Rio del Norte, in its course to the Gulf of Mexico. On the flanks of the great mountains dense forests of pine, fir, spruce, aspen, hemlock, oak, cedar, and piñon, alternate with broad, natural meadows, producing a luxuriant growth of nutritious grasses. The plains are dotted with timber, but are for the most part clothed with grasses, upon which cattle subsist throughout the year, without any other food, and requiring no shelter. Thermal springs abound here, as in many other parts of Colorado, generally highly charged with medicinal properties.

Monument Park, which is much smaller than any of the others, attracts many visitors. It is reached from Monument, a station on the Rio Grande & Denver road, and is about nine miles from Colorado Springs. The park is very striking. The visitor may readily imagine himself in some vast cemetery, filled with monuments of a departed race. Distributed principally upon one of the bluffs enclosing the park, the mimic sepulchral sculpture stands up in almost every conceivable variety of form. A close examination of the "monuments" shows that they are composed of a rather close conglomerate, surmounted by an overhanging capital of darker color and harder texture; where this has fallen, the columns are much more weather-worn, and are evidently hastening rapidly to complete disintegration.

Garden of the Gods is a fanciful title for a valley of small dimensions lying four miles from Colorado Springs. Its features are a number of shelf-like rocks, upheaved into perpendicular position, some of them rising to about 350 feet in height. The road enters the Garden, so called, through a narrow passageway between two towering but narrow ledges of cliffs, and this entrance is designated the gate-way, although it is difficult to determine the boundaries of the "Garden." The rocks are mainly of a very soft, brilliantly-red sandstone, although one ridge of cliffs is of a white sandstone. The foot-hills in the vicinity are many of them capped by similar upheavals, ridges of serrated rock, while all about the main cliff in the valley are numerous separate, spire-like columns. At the entrance to Glen Eyrie, a short distance from the Garden, where General Palmer, president of the Denver & Rio Grande Railroad, has built a beautiful mountain villa, are similar rocks, one of which stands like an immense tower, several hundred feet high, and not more than seven or eight feet in thickness. These rock-forms are a phenomenal feature peculiarly attractive to the geologist.

ROUTE I.

DENVER & RIO GRANDE RAILWAY.

Denver, which has already been fully described on page 92, will naturally be the tourist's starting-point, whatever places he may wish to visit. From here a narrow-gauge railroad—the first erected in the country—extends southward 117 miles to Senbler. It is designed to extend it to Santa Fé. No stations of importance are passed until Colorado Springs are reached, 75 miles from Denver. But the road is exceedingly interesting the entire distance, affording as it does continually varying scenes of the mountains, with Pike's Peak in view nearly the entire distance.

The road crosses the "Divide," the summit of which is 50 miles south of Denver, a spur of the mountains 7,500 feet above tide-level, so called because it divides the South Platte and the Arkansas.

At the station "*Monument*," about 65 miles south from Denver, there is a hotel. This point is in close proximity to "*Monument Park*."

Colorado Springs is an important centre for the tourist, being situated in close proximity to many points of interest. The name is misleading, however. No springs are situated within six miles of the spot, the name being applied simply to an active and flourishing town, laid out first in 1871. Concord coaches connect with every train for the springs, six miles distant, where there are several hotels, the "*Manitou House*" being the most prominent. This hotel is a fashionable summer resort; it is situated among the foot-hills at the base of Pike's Peak, and affords a good point of departure for this mountain. It is on the road to *Ute Pass*, to *Falls of the Fountain*; is near *Garden of the Gods*, *Glen Eyrie*, and about eight miles from *Monument Park*. "*Colorado Springs*" is also a good point of departure for all these places, and also for *Cheyenne Mountain* and *Cheyenne Cañon*. It is a flourishing village, situated on the plains, with a fine view of the mountain. The streets are planted with shade-trees, and currents of a mountain stream, brought from the hills, flow through every avenue. There is a good hotel. The following table of distances to noted places will be serviceable to the tourist: To *Mountain Springs*, 6 miles; to *Garden of the Gods*, 4 miles; to *Monument Park*, 9 miles; to *Glen Eyrie*, 5 miles; to *Cheyenne Cañon*, 4 miles; and to summit of *Pike's Peak*, by carriage, 6 miles, 8 miles by mule, and 2 miles of rugged foot-path—total, 16 miles. Guides are at hand for the more distant points, and the traveller should remain here several days if he would enjoy all the beauties of the region.

Pueblo is the chief city of Southern Colorado. It is situated at the confluence of the *Fontaine qui Bouille* with the *Arkansas River*; is at the crossing of the old trade-routes from the East, and between Colorado and New Mexico; and is the commercial entrepot for the vast and rich arborous valley. In 1872 its population was 2,500; it is probably now considerably in excess of this. "The

railroad projects," says the Hand-Book of Colorado, "may be stated as follows: The Denver and Rio Grande Railway already in operation; the Pueblo and Cañon City branch now under construction; the extension of the main line down the Rio Grande; a branch from Pueblo to Trinidad, 100 miles; the construction of a branch of the Kansas Pacific from Kit Carson to this point; the change of route of the Atchison, Topeka, & Santa Fé Railroad, taking the Arkansas Valley, and making Pueblo its objective point."

Cañon City, 45 miles from Pueblo, reached by a branch of the Denver & Rio Grande Railway, is situated on the Arkansas River, five miles from extensive coal mines—an active, rapidly-growing place.

ROUTE II.

COLORADO CENTRAL RAILWAY.

THE Colorado Central Railway extends, by ordinary track, to Golden City, 15 miles distant; from this point a narrow-gauge road runs up the Clear Creek Cañon to Black Hawk and Central City, with a branch road at a point eight miles this side, extending to Idaho Springs, and in process of construction to Georgetown.

Golden City is situated near the line of the foot-hills of the mountains, between two picturesque hills and the North and South Table Mountains. It is in the centre of an extensive mining-region; is the point of departure for the mountain mining-towns, for Bear Creek Cañon, 6 miles distant (by wagon-road), Boulder and Boulder Cañon, 18 miles northward.

The road up Clear Creek Cañon follows the winding of the creek through one of the most wild and picturesque regions on the continent. The cañon is very narrow; the irregular walls of rock reach from one to two thousand feet in height. Every turn of the road shows a new and often startling picture—piles of Titanic rocks, ponderous masses that seem to threaten instant downfall into the stream below. In order to see the splendid

scenery to advantage, an outside place should be secured. But observation-cars are in process of construction, which will prove of great advantage to the lover of the picturesque. It is claimed by some that no railroad ride in the country equals this in all the conditions of wild and wonderful scenery.

Black Hawk (30 miles), the terminus of the right branch of the road, is a mining-town, built irregularly along the gulches and mountain-sides, and is one of the busiest towns in the Territory. It lies in the heart of Gilpin County, a mile east of Central, and is a point of extensive mining and milling operations. Professor Hill's reduction-works, the most extensive in Colorado, and numerous stamp-mills and founderies, are located here.

Central City, $1\frac{1}{2}$ mile distant, reached by omnibus, is an extensive mining town, very picturesquely situated on the mountain-slopes, on an elevation of 8,500 feet. This is a point of departure for James's Peak. A stage connects with Idaho Springs, and thence to Georgetown. There are numerous shops, banks, newspapers, and an excellent hotel.

By the Georgetown division of the railroad we reach

Idaho Springs (35 miles), the present terminus of the branch, beautifully situated in a valley nestling among lofty mountain-ranges. The chief attractions of the place are its hot and cold mineral springs, its salubrious atmosphere, and its charming scenery. It has all conveniences requisite for the comfort of tourists and invalids, and is quite a rendezvous for excursion-parties. The fullest outfits of carriages, horses, and attendants, are here furnished to those desiring to visit Middle Park, Chicago Lakes, Green Lakes, the Old Chief, the mining-regions, and many other interesting points in the environs.

Georgetown (48 miles), the projected terminus of this branch of the *Colorado Central Railway*, is now reached by Concord stages. It is the centre of the silver-mining interests, and is situated on a broad, level base at the mouth of two or three cañons, walled in, on three sides, by Leavenworth, Republican, and Summit Mountains.

Gray's Peak. Georgetown is the starting-point for Gray's Peak, which every visitor to Colorado should ascend. One day will suffice to carry the tourist to the summit and back again to Georgetown. The mountain-view from Gray's Peak, except that it lacks the picturesque-ness of the glaciers, has all the beauties of Alpine scenery. To the north-west and south there is almost an infinite number of lofty peaks and frowning crags, while down the valleys of the different branches of Clear Creek to the eastward one can see far out on the plains, perhaps a hundred and fifty miles away. To the northeast is Long's Peak, only a few feet lower than Gray's. To the west is the Blue River Range, broken by lofty, jagged, snow-crowned peaks, while far toward Bear River, in the blue distance, the *Rabbit's Ears* and *Gore's Pass* are prominent objects. To the south-east, Pike's Peak looms up in solemn grandeur, while to the west of it the Sawatch and other ranges, that mark the course of the Arkansas, skirt the horizon. Sections of the Middle and the South Parks, scooped out far down in the mountains, with other deep valleys without number, repose in quiet beauty at our feet.

ROUTE III.

To Boulder, 46 miles from Denver, by Colorado Central Railway to Golden, thence by Julesburg & Golden Railway. The situation of this town among the lower range of foot-hills is very picturesque, and it is the commercial centre of one of the richest mineral regions in Colorado. Near it is *Boulder Cañon*, accessible by a wagon-road, which is one of the wonders of the Ter-

ritory, and which is thus described by Mr. J. H. Zin, in his book "Over the Plains and on the Mountains:" "No language can do justice to its awful, sublime, and grand scenery. Here is immense variety and stupendous vastness, combined with all the elements of the grand, the beautiful, and the sublime."

ROUTE IV.

DENVER PACIFIC RAILWAY TO CHEYENNE.

Greeley (52 miles) is the pioneer colony town of Colorado. Laid out in May, 1870; business of the place already large. The colony has about 100,000 acres, and exhibits some of the best instances of farming by irrigation in the country. Two canals have been dug, one 10 miles, the other 26 miles, long.

Cheyenne, Wyandotte (106 miles). (See page 96.)

ROUND TRIP.

For the tourist who may wish to see as much as possible, a trip that will take in much of the best scenery of Colorado is from Denver to *South Park* and back, *via* Colorado Springs and Garden of the Gods. Distances as follows: From Denver to the entrance of South Park, 70 miles; thence to Fairplay, 20 miles; Fairplay to Twin Lakes, 40 miles; Twin Lakes to South Park, 35 miles; thence to Cañon City, 70 miles; Cañon City to Colorado Springs, 45 miles; Colorado Springs to Denver, 75 miles—total, 355 miles. The side visits are Hamilton to Breckinridge, 16 miles; Fairplay to Mount Lincoln, 12 miles; Twin Lakes to the summit of the Saguache Range, 22 miles.

WYOMING.

WYOMING Territory—organized by act of Congress, July 25, 1868—lies between the 27th and 34th meridians of longitude west from Washington, and the 41st and 45th degrees of north latitude, and covers

an area of 27,880 square miles, or upward of 62,500,000 acres. It has Nebraska and Dakota on the east, Colorado and Utah on the south, Utah and Idaho on the west, and Montana on the north.

The southeastern part of the Territory is watered by the North Fork of the Platte River and its tributaries, among which are the Laramie and Sweetwater Rivers. The northeastern section is drained by the Cheyenne River, flowing east into the Missouri. In the southwest, we have the Green River and its numerous affluents, and in the northwest the Big Horn, Powder, and Yellowstone Rivers, flowing north. The general altitude of the plains and valleys of Wyoming is from 3,000 to 7,000 feet. The altitude of Pine Bluffs, at the eastern boundary, is 5,026 feet; Cheyenne, the capital of the Territory, is 6,040 feet; Laramie City, 7,123 feet.

Climate.—The air in Wyoming is light and pure, there being but little snow here, compared with the amount that falls in the States along this latitude. Snow does not interfere with the grazing of cattle and sheep throughout the winter. There is very little extremely cold weather; and the thermometer is not higher than 90° Fahr. during the hottest days in August. The evenings and mornings are always cool and exhilarating. The only disagreeable feature of the climate is the frequency of the strong winds in the fall and winter. These, however, do no harm to man nor beast, nor do they, as in the States, accompany heavy storms; on the contrary, they soon give place to sunshine and pleasant weather.

Timber.—The traveller crossing the continent on the railway obtains the idea that the Territory has very little timber; that the mountains are covered with a few pines only. This is not the case. There are millions of acres of pine, cedar, fir, spruce, and hemlock. All the timber can easily be floated down the numerous streams to the railroad. The forests are inexhaustible for many generations, and must become a source of wealth to the people of the Territory and to the Union Pacific Railway.

Buffalo are found in large herds in the northern portion of Wyoming, and elk, deer, and antelope are quite numerous. Of fur-bearing animals there are the beaver, otter, and mink, which are a source of large profit to the trapper and hunter.

Stock-Raising.—The advantages and

facilities for stock-raising in Wyoming are excellent. The short, nutritious grass on the plains and hill-sides makes the Territory one of the most desirable stock-growing regions on the continent. Cattle feed and fatten upon it, both winter and summer, without other fodder or shelter. Sheep also feed the entire year upon the grass of the plains, and, like the cattle, require no shelter but that furnished by the bluffs or cañons. The high rolling character of the country and the dry climate are extremely favorable to sheep-raising and wool-growing.

The soil of the plains and valleys is well adapted to the raising of wheat, oats, and barley, and potatoes, cabbage, turnips, beets, and onions. Deep ploughing and irrigation are necessary.

The population of Wyoming is given by the census of 1870 as 9,118, and its wealth is estimated at \$5,516,743.

The Mining Districts.—The minerals found in the Territory are principally gold, copper, iron, paint-ore, and coal. Gold is mined at present in the *Sweetwater* country, near South Pass and Atlantic City. (See pages 105, 106.) It is also found on the northeast and west sides of Medicine-Bow Mountain. Copper and paint-ore are produced in Carbon County, near Rawlins Springs. Iron-ore is found in large deposits all over the Territory. The celebrated *Iron Mountain*, near Cheyenne, presents the ore in the condition of magnetic iron-stone. Its color is black, it has a metallic lustre when broken, influences the magnetic needle, and is far superior in quality to most of the iron-ores found in the States. This mountain rises over 2,000 feet above the valley, is about a mile long, and several hundred feet wide, being one solid mass of iron-stone, free from rock or earth of any kind. The Territory has coal in abundance, it being found in all parts. The deposits are said to cover an area of 30,000 square miles. Silver has not yet been discovered in the Territory, but it probably exists in the limestone formations in different localities. Precious stones, including the topaz, amethyst, agate, opal, jasper, and chalcedony, have been found in small quantities.

Railways.—There are nearly 500 miles of railway in the Territory, and two rail-

road projects are pending, which will add 700 miles to the same. The *Union Pacific Railway* crosses Wyoming near its southern boundary-line, and has 480 miles of track within its limits. The *Denver Pacific Railway* connects Cheyenne with Greeley and Denver, in Colorado. At the latter place it forms a junction with the *Kansas Pacific Railway*. This road was completed about two years since, and has greatly benefited the people of Wyoming. The *Cheyenne, Iron Mountain & Montana Railway Company*, and the *Green River & Yellowstone Railway Company*, have lately been organized. The names indicate the points at which these roads will commence and end. The two enterprises are in the hands of the most influential men of the West, and will open to the settler the most valuable portion of the Territory, which would otherwise remain a wilderness for many generations.

Cheyenne. (See page 94.)

Along the line of the *Union Pacific Railway* are the towns of Wyoming, Car-

bon, Rawlins, Bryan, and Carter, principally built up by mining interests. (See pages 103-105.)

Evanston is located near the great coal-mines of the Rocky Mountain Coal Company, and derives its importance from these mines. Here some of the best coal of the West is found. Utah, Nevada, and California, draw their supplies of fuel from the mines at Evanston.

South Pass, Hamilton, and Atlantic, are inland towns, located at a distance of 75 miles from the railroad, near the celebrated Sweetwater gold-mines. The growth and future importance of these places depend in some measure upon the development of these mines. The red-men are at present disposed to be peaceable. Their reservations being at a distance of several hundred miles from the settlements, they do not come in contact with the whites, and the military force in the Territory is adequate to the task of keeping the Indians within bounds.

Laramie City. (See page 102.)

MONTANA.

MONTANA formed a part of Idaho until May, 1864, at which time it was organized into a distinct Territory. It is bounded on the north by the British possessions, on the east by Dakota, and on the south by Wyoming and Idaho, and on the west by Idaho. Its length is about 560 miles, and its breadth about 275 miles, having an area of about 153,300 square miles.

Mountains, Soil, etc.—The surface of the country is generally mountainous. The great Rocky Mountain range crosses the Territory. Commencing at the northern boundary, this range extends a distance of about 200 miles in a south-south-east direction, after which it describes a great curve westward until it touches the border of Idaho. From this point the range winds along the southwest boundary of Montana for nearly 200 miles. The Bitter-Root Mountains also form a part of the western boundary. The country bordering on the Jefferson, Gallatin, and

Madison Forks of the Missouri, is among the most fertile and beautiful to be found west of the Mississippi. The country is a gently-undulating prairie, dotted here and there with clumps of timber. The streams are beautifully fringed with forest-growth, the soil is rich, and the climate generally mild and invigorating.

Minerals.—Gold and silver have been found in great abundance, and mining is now the most important industry of the Territory. Montana is believed, by many who have visited and "prospected" it, to be the richest placer-mining region in the United States.

Rivers.—The principal rivers are the Missouri, the Yellowstone, and their tributaries; the Big Horn, Powder-Horn, Milk, and Manas Rivers.

The Missouri is fully described in TOURS OF THE GREAT LAKES AND RIVERS, No. III. (See page 173.)

The Great Falls of the Missouri (see page 174) are regarded



as the leading object of interest to travellers.

THE SCENERY OF THE YELLOWSTONE.

The Yellowstone is without exception the most extraordinary river on the continent. It has only been fully explored within the past year or two, and its wonders are as yet comparatively unknown. The *Northern Pacific Railway*, which will traverse the Territory, will in all probability be completed within the next three years, when the trip from the Atlantic seaboard to this wonderful region may be made within four days, and the rush of tourists to Montana will then scarcely be less than to California at the present time. With its tributaries, *Big Horn*, *Powder-Horn*, etc., this great river drains the southern and eastern portions of the Territory, in which nearly the whole of its course is included. Mr. N. P. Langford, the explorer of the Yellowstone, has furnished a series of well-written articles on the subject, to *Scribner's Monthly*, from which we make the following extracts:

"The Yellowstone and Columbia, the first flowing into the Missouri and the last into the Pacific, divided from each other by the Rocky Mountains, have their sources within a few miles of each other. Both rise in the mountains which separate Idaho from the new Territory of Wyoming, but the head-waters of the Yellowstone are only accessible from Montana. The mountains surrounding the basin from which they flow are very lofty, covered with pines, and on the southeastern side present to the traveller a precipitous wall of rock several thousand feet in height. This barrier prevented Captain Reynolds from visiting the head-waters of the Yellowstone while prosecuting an expedition planned by the government and placed under his command, for the purpose of exploring that river in 1859."

The Source of the Yellowstone is in a magnificent lake, nearly 9,000 feet above the level of the ocean. In its course of 1,300 miles to the Missouri, it falls about 7,200 feet. Its upper waters flow through deep cañons and gorges, and are broken by immense cataracts and fearful rapids, presenting at

various points some of the grandest scenery on the continent. This country is entirely volcanic, and abounds in boiling springs, mud-volcanoes, huge mountains of sulphur, and geysers more extensive and numerous than those of Iceland."

The Lower Cañon.—"The lower cañon of the Yellowstone, as a single isolated piece of scenery, is very beautiful. It is less than a mile in length, and perhaps does not exceed 1,000 feet in depth. Its walls are vertical, and, seen from the summit of the precipice, the river seems forced through a narrow gorge, and is surging and boiling at a fearful rate—the water breaking into millions of prismatic drops against every projecting rock."

The Devil's Slide.—"After travelling six miles over the mountains above the cañon, we again descended into a broad and open valley, skirted by a level upland for several miles. Here an object met our attention which deserves more than a casual notice. It was two parallel vertical walls of rock, projecting from the side of a mountain to the height of 125 feet, traversing the mountain from base to summit, a distance of 1,500 feet. These walls were not to exceed thirty feet in width, and their tops for the whole length were crowned with a growth of pines. The sides were as even as if they had been worked by line and plumb—the whole space between, and on either side of them, having been completely eroded and washed away. We had seen many of the capricious works wrought by erosion upon the friable rocks of Montana, but never before upon so majestic a scale. Here an entire mountain-side, by wind and water, had been removed, leaving, as the evidences of their protracted toil, these vertical projections, which, but for their immensity, might as readily be mistaken for works of art as of nature. Their smooth sides, uniform width and height, and great length, considered in connection with the causes which had wrought their insulation, excited our wonder and admiration. They were all the more curious because of their dissimilarity to any other striking objects in natural scenery that we had ever seen or heard of. In future

years, when the wonders of the Yellowstone are incorporated into the family of fashionable resorts, there will be few of its attractions surpassing in interest this marvellous freak of the elements. For some reason best understood by himself, one of our companions gave to these rocks the name of the 'Devil's Slide.'"

The Great Canon.—"The Great Falls are at the head of one of the most remarkable cañons in the world—a gorge through volcanic rocks fifty miles long, and varying from one thousand to nearly five thousand feet in depth. In its descent through this wonderful chasm the river falls almost three thousand feet. At one point, where the passage has been worn through a mountain-range, our hunters assured us it was more than a vertical mile in depth, and the river, broken into rapids and cascades, appeared no wider than a ribbon. The brain reels as we gaze into this profound and solemn solitude. We shrink from the dizzy verge appalled, glad to feel the solid earth under our feet, and venture no more, except with forms extended, and faces barely protruding over the edge of the precipice. The stillness is horrible. Down, down, down, we see the river attenuated to a thread, tossing its miniature waves, and dashing, with puny strength, the massive walls which imprison it. All access to its margin is denied, and the dark-gray rocks hold it in dismal shadow. Even the voice of its waters in their convulsive agony cannot be heard. Uncheered by plant or shrub, obstructed with massive bowlders and jutting points, it rushes madly on its solitary course, deeper and deeper into the bowels of the rocky firmament. The solemn grandeur of the scene surpasses description. It must be seen to be felt. The sense of danger with which it impresses you is harrowing in the extreme. You feel the absence of sound, the oppression of absolute silence. If you could only hear that gurgling river, if you could see a living tree in the depth beneath you, if a bird would fly past, if the wind would move any object in the awful chasm, to break for a moment the solemn silence that reigns there, it would relieve that tension of the nerves which the scene has excited, and you

would rise from your prostrate condition and thank God that He had permitted you to gaze, unharmed, upon this majestic display of natural architecture. As it is, sympathizing in spirit with the deep gloom of the scene, you crawl from the awful verge, seared lest the firm rock give way beneath and precipitate you into the horrid gulf."

The Mud-Volcano.—"While returning by a new route to our camp, dull, thundering sounds, which General Washburn likened to frequent discharges of a distant mortar, broke upon our ears. We followed their direction, and found them to proceed from a mud-volcano, which occupied the slope of a small hill embowered in a grove of pines. Dense volumes of steam shot into the air with each report, through a crater thirty feet in diameter. The reports, though irregular, occurred as often as every five seconds, and could be distinctly heard half a mile. Each alternate report shook the ground a distance of two hundred yards or more, and the massive jets of vapor which accompanied them burst forth like the smoke of burning gunpowder. It was impossible to stand on the edge of that side of the crater opposite the wind, and one of our party, Mr. Hedges, was rewarded for his temerity in venturing too near the rim, by being thrown by the force of the volume of steam violently down the outer side of the crater. From hasty views, afforded by occasional gusts of wind, we could see at a depth of sixty feet the regurgitating contents."

The Giant Geyser.—"The Giant' has a rugged crater, ten feet in diameter on the outside, with an irregular orifice five or six feet in diameter. It discharges a vast quantity of water, and the only time we saw it in eruption the flow of water in a column five feet in diameter, one hundred and forty feet in vertical height, continued uninterruptedly for nearly three hours. The crater resembles a miniature model of the Coliseum."

The Giantess Geyser.—"Our search for new wonders leading us across the Fire Hole River, we ascended a gentle, incrustated slope, and came suddenly upon a large oval aperture with scalloped edges, the diameters of which were eighteen and twenty-five feet, the sides corrugated and

covered with a grayish-white silicious deposit, which was distinctly visible at the depth of one hundred feet below the surface. No water could be discovered, but we could distinctly hear it gurgling and boiling at a great distance below. Suddenly it began to rise, boiling and spluttering, and sending out huge masses of steam, causing a general stampede of our company, driving us some distance from our point of observation. When within about forty feet of the surface it became stationary, and we returned to look down upon it. It was surging and foaming at a terrible rate, occasionally emitting small jets of hot water nearly to the mouth of the orifice. All at once it seemed seized with a fearful spasm, and rose with incredible rapidity, hardly affording us time to flee to a safe distance, when it burst from the orifice with terrific momentum, rising in a column the full size of this immense aperture to the height of sixty feet; and, through and out of the apex of this vast aqueous mass, five or six lesser jets or round columns of water, varying in size from six to fifteen inches in diameter, were projected to the marvellous height of two hundred and fifty feet. These lesser jets, so much higher than the main column, and shooting through it, doubtless proceed from auxiliary pipes leading into the principal orifice near the bottom, where the explosive force is greater. If the theory that water by constant boiling becomes explosive when freed from air be true, this theory rationally accounts for all irregularities in the eruptions of the geysers.

"This grand eruption continued for twenty minutes, and was the most magnificent sight we ever witnessed. We were standing on the side of the geyser nearest the sun, the gleams of which filled the sparkling column of water and spray with myriads of rainbows, whose arches were constantly changing,—dipping and fluttering hither and thither, and disappearing only to be succeeded by others, again and again, amid the aqueous column, while the minute globules into which the spent jets were diffused when falling, sparkled like a shower of diamonds, and around every shadow which the denser clouds of vapor, interrupting the sun's rays, cast upon the column,

could be seen a luminous circle, radiant with all the colors of the prism, and resembling the halo of glory represented in paintings as encircling the head of Divinity. This geyser we named 'The Giantess.'"

By act of Congress, passed March 1, 1872, the whole of the region described above, embracing upward of 200 square miles was made a National Park, "to be kept inviolate forever."

ROUTES.

The principal routes to the Territory are the overland route from Corinne, Utah, on the Union Pacific Railway (see page 112), *via* Bear River, and Bannack to Virginia City and Helena; and the Missouri River route to Fort Benton (see TOURS OF THE GREAT LAKES AND RIVERS, No. III.). The latter cannot be travelled except during the rise of the river, which usually takes place in June, and ordinarily affords navigation for about six weeks. Fort Union, 400 miles below Fort Benton, is the head of summer navigation. Until the Northern Pacific Railway reaches Montana, for all practical purposes of travel the overland route from Corinne can be the only one used. Wells, Fargo & Co. run a daily line of stages, carrying the United States mail and express to Virginia City (358 miles) and to Helena (482 miles). From Fort Benton, *via* Mullan's Pass and Stevens's Pass to Walla-Walla, Oregon, a distance of 618 miles, the road crosses the northern part of the Territory.

Leaving Corinne by stage, we pass some thriving Mormon villages of dull-brown adobe houses, and are soon out of the Territory of Utah.

After crossing the Idaho line a little north of Bear River, the road lies through Port Neuf Cañon, 30 miles long, and soon after the traveller reaches

The Snake or Shoshone River, the old Lewis Fork of the Columbia. This great river rises in the mountainous region of Southeastern Idaho, and flows northwestward into Washington Territory. It is about 900 miles long from its source to its junction with the Columbia, and, just before it reaches the noble valley of the latter river, it makes a series of very abrupt descents from its elevated channel in the Blue Mountains.

(See chapter on IDAHO.) After a long journey, it bids a final adieu to the rocks and gorges through which it has been struggling for so many miles, and enters the beautiful valley, watered by four noble rivers, and enclosed on all sides by the Rocky and Blue Mountains, and the Cascades. This valley is one of the most beautiful on the Pacific coast, and, if explorers are to be trusted, on the entire continent. Beyond Snake River the road crosses miles of sand. To the east rise the *Three Têtes*, a spur of the Rocky Mountains, called by the Indians the "Three Pinnacles." Climbing over the "divide" of the Rocky Mountains, just beyond *Pleasant Valley Station*, we leave the Pacific slope behind, entering Montana among the tributaries of the Missouri.

Bannack, the pioneer town of Montana, is first reached. It lies in the gulch of Grasshopper Creek, enclosed by lofty mountains, 70 miles from Virginia City and 400 from Salt Lake City.

Virginia City, the capital and chief city of Montana, is situated on Alder Creek, a tributary of Jefferson's Fork of the Missouri. It was settled in July, 1862, and with its suburbs, *Nevada City* and *Juniper*, contains a population of between 6,000 and 8,000. Alder Gulch is about 13 miles in length, and presents,

to the eye of one unacquainted with mining operations, a curious spectacle. Millions of dollars of gold have been taken out of it. Stages and stage expresses leave daily and tri-weekly for Helena, Bannack, and Salmon River, Silver Bow, Red Mountain City, Deer Lodge, Blackfoot, Reynolds City, Beartown, and Hellgate.

Between Virginia City and Helena the distance, 120 miles, is usually travelled by stage in 14 to 16 hours. Views of the junction of the Jefferson, Gallatin, and Madison Forks, which form the Missouri, and of the *Hot Springs*, four miles from Helena, and White-tailed Deer Cañon, are obtained *en route*. These springs have fine medicinal properties, and are much frequented by visitors from Helena.

Helena is a thriving young city, with a population of nearly 10,000. It is the supply-point of the rich placer-mines of the Blackfoot country and other sections of Northern Montana, embracing some of the most valuable diggings on the continent. It is 18 miles west of the Missouri River, and 120 miles north of Virginia City. The first settlement was made here in *Last Chance Gulch*, in the fall of 1864. In the vicinity are extensive quarries of granite and blue limestone.

(See APPENDIX.)

IDAHO.

IDAHO was organized as a Territory, March 3, 1863. Its area was originally 243,300 square miles, but of this immense area Montana has now nearly two-thirds, leaving Idaho only about 90,000 square miles. It is formed from the eastern halves of the old Washington and Oregon Territories, the western half of Nebraska, and a small part of Northern Utah. It extends from Utah and Nevada on the south to the British possessions on the north. It is said that the Indian word *Idaho* is, in English, "a star;" and again, that it stands for "the gem of the mountains." The Idaho region includes the rich gold-fields of Salmon River, a stream of remarkably picturesque beauty, flowing, here and there, between grand per-

pendicular walls varying in height from 500 to 2,000 feet. The very recent and rapid settlement of Idaho, commenced within two or three years past, has grown out of the gold discoveries. These discoveries attracted thousands of adventurers from California, who soon afterward pushed their explorations toward Eastern Oregon and Western Idaho. From that period to the present a steady and increasing tide of immigration has set thitherward, and the resources of the land are being daily revealed and utilized, both in its mineral stores and its capacities in soil, climate, etc. Settlements are rapidly growing up, roads are being constructed, the waters are navigated, schools and churches are appearing, with all

other adjuncts of permanent and progressive civilization.

Minerals.—The mineral resources of Idaho compare well with those of the other valuable mining portions of the great Rocky Mountain region. Gold is found in most of the tributaries of the Missouri and the Yellowstone. Platina, too, has been obtained in small quantities, while extensive deposits of this valuable metal are supposed to exist. Copper, iron, and salt, are abundant; and coal is found upon the Pacific slope of the Rocky Mountains, and on the Upper Missouri and Yellowstone Rivers.

The climate of the Idaho region is bleak in the mountain-ranges, but mild and agreeable in the valley districts.

Boisé is the capital, and Idaho City, Lewiston, Ruby City, and Star City, the principal towns.

The population of the Territory is given by the census of 1870 as 14,998, and the total valuation of real estate and personal property, \$5,292,145.

ROUTES.

The leading approaches to the Territory are from the Pacific by the Humboldt route from Hunter's Station, on the overland (Wells, Fargo & Co.'s) mail line to Boisé, the capital, from the Central Pacific Railway, or from Portland, Oregon, by way of the Columbia and Snake Rivers to Lewiston, and from Umatilla and Wallula to Boisé and Idaho Cities. From Salt Lake City, *via* Bear River (84 miles), to Boisé (393 miles).

Boisee or Boisé City, the capital and chief commercial town of Idaho, is situated on a level plain on the north bank of the Boisé River, about 30 miles southwest of Idaho city, 300 miles northwest of Great Salt Lake City, and is reached by stage from Winnemucca, on the *Central Pacific Railway* (see page 115), and also by stage from Indian Creek (Kelton). It became the capital in 1864. Its broad, level, treeless avenues, with their low, white-verandaed warehouses, log cabins, new, neat cottages, and ever-shifting panorama of wagons and coaches, Indians, miners, farmers, and speculators, remind one of a prairie-town in Kansas or Iowa. It is overlooked by *Fort Boisé*, which has a noble parade-

ground, surrounded by tasteful buildings of sand-stone, and is the most beautiful of all our frontier posts, except Fort Davis, in Texas.

Ruby City, *Silver City*, and *Boonville*, are trading towns in the mountain mining district of Owyhee. They are reached over a rough, dreary road from Boisé in one day. Ruby City is in the heart of the Owyhee district, and 6 miles from the Oregon line. It stands at the bottom of a deep cañon, overlooked by mountain-summits which tower from 800 to 1,500 feet above it. *War Eagle*, the highest, is 2,000 feet above the town and 5,000 feet above the sea. This mountain is rich in mineral. The *Morning Star* and *Oro Fino Mills* should be visited.

The Great Shoshone Falls (Shoshone River, see page 251), 185 miles from Boisé City, and 6 miles from the stage-road, should be visited. They are described as follows by Ross Browne: "The river for many miles, both above and below, passes through a volcanic valley. It has cut a perpendicular cañon through the layers of lava to the depth of about one thousand feet. The cañon is generally about half a mile wide. At the point where the falls are located it is nearly a mile wide. Viewed from below it appears circular, like a vast amphitheatre, with the falls in the centre. The different layers of lava resemble seats in tiers ranged one above another to a height of seven hundred feet above the head of the falls. In the narrowest part the water is two or three hundred yards wide. About four hundred yards above the main falls are five islands, at nearly equal intervals across the river, dividing the stream into six parts. As the water passes between the islands it is precipitated twenty-five or thirty feet. The falls differ essentially from each other in form, affording great variety. Below the islands the water unites and passes in an unbroken sheet over the great fall; the descent is about two hundred feet. The semicircle at the head of the falls is apparently perfect, and the leap as clear as that of Niagara. Enormous clouds of mist and spray arise, variegated with rainbows. At the foot are rushing showers of spray, from under which the water, beaten into foam, dashes furiously away.

Occasionally can be seen through the flying mists the immense sheet of water standing out in bold relief from the rocks, showing that with proper appliances it is practicable to go behind, as at Niagara. A few hundred yards farther down, the water swings slowly around in a huge whirlpool and then disappears in the black cañon below. The delicate prismatic colors of the rainbow and the graceful, evanescent forms of the mist contrast strangely with the iron-black surface, hard outlines, and awful forms of the overhanging basalt. The sound of the rushing waters resembles that of an orchestra, the small falls giving the high notes, and the great falls the bass, producing a combination not possible to obtain from a single undivided current. At Rock-Creek Station, twenty miles distant, it can be heard distinctly—not con-

tinuously, but at intervals, like the surf. When the notes strike in unison they can be heard at a greater distance."

Lewiston is at the junction of the Snake and Clearwater Rivers, at the head of steamboat navigation. It is reached by stage from Wallula (see WASHINGTON TERRITORY), and in summer by steamers from Dalles.

Idaho City (formerly Bannack) is situated at the confluence of Elk and Moore's Creeks, in the midst of the placer gold-mines of the Bois  Basin. Bois  City is 36 miles distant. A fire destroyed a great part of the town in May, 1865, but it has been wholly rebuilt. It is reached by stage from Winnemucca (see page 115), and connects by stage with Umatilla, Oregon.

The mining town of *Buena Vista Bar*, opposite Idaho City, has a population of about 2,000. (See APPENDIX.)

U T A H.

UTAH was formerly peopled entirely by Indians, principally by the various tribes of Utes, from whom it takes its name. It was settled by the Mormons, in 1847. It extends from the 37th to the 42d parallels of north latitude, and to the 114th degree of west longitude, occupying an area of about 82,000 square miles, of which, about 135,000 acres are under cultivation.

The climate is said to resemble that of the great Tartar plains of Asia, the days in summer-time being hot and the nights cool. The winters are mild in the valleys, and, except in the mountain-ranges, but little snow falls. There the thermometer ranges from zero to 30° below for days and even weeks together. The temperature is liable to great and quick transitions from the changing currents of the winds.

The population is given by the census of 1870 as 86,786. Of this, Great Salt Lake County contributes 18,337 inhabitants; Piute County gives no returns, the settlers having been driven out by Indians. Utah County has a population of 12,243. In consequence of the recent great rush to the new silver-mines,

the population of the Territory has been greatly augmented. The total valuation of real estate and personal property in Utah is given by the census of 1870 as \$13,109,930, against \$4,158,020 in 1860.

The soil of Utah is filled with various mineral substances, such as salt, soda, lime, sulphur, alkali, etc. In many places the earth looks red, like blood, or white, like flour, according as the minerals spoken of come to the surface.

So much of the wonders of Utah scenery has been described in the chapter on the Pacific Railway (ROUTE XVIII.) which traverses the northern portion of the Territory, that but few points of interest remain to be spoken of.

The Great Salt Lake Valley cuts through the centre of the Territory like the section of a tunnel, and rises on all sides into level benches or terraces one above the other, supposed to be ancient water-marks, and still beyond these, evenly indented in the mountain-sides for many miles other benches rise, so that one cannot tell where the valley ends and the mountains commence. The extent of the former is variously es-

timated from 70 to 100 miles from north to south, and from 30 to 60 miles from east to west, according as these great level stretches are taken into the computation or not. The valley is 4,000 feet above the sea, and is consequently above dew point. The atmosphere here is so rarefied that it is often the means of greatly deceiving strangers as to distances; a place that one supposes to be within a stone's-throw being often two or three miles distant.

The Great Salt Lake has been described on page 113.

Salt Mountain, in the southern part of the Territory, on the *Colorado River*, is a mountain of solid salt, clear as crystal, and somewhat resembling a huge iceberg.

The scenery of Utah affords continual surprises for the tourist. He sees immense cañons winding around the mountains in every possible form; beautiful lakes burst on his view in the most unexpected places, while towering bluffs, deep ravines, narrow gorges, and lofty mountain-ranges, snow-capped and barren, go to make up a series of natural pictures which, for diversity in beauty and grandeur, can scarcely be excelled.

The Warm Springs, which are about two miles north of Salt Lake City, and the Hot Springs, a little farther north, are worth visiting. Various medicinal virtues are ascribed to the waters of the former, whose temperature is set down as 102° Fahrenheit. A comfortable bathing-house has been built at this place.

The Hot Springs gush out of rocks, at the base of the mountains, into a narrow basin, throwing off an oppressive sulphurous odor. Their temperature is so much above that of the Warm Springs that no one can bathe in the waters. It has been asserted by some travellers that eggs can be boiled in them, which may be true, but they cannot be cooked in five minutes. The temperature is so high, however, that if the visitor tries to test it by thrusting his fingers in the springs, he will certainly scald them. Some of the water was analyzed by Dr. Charles Jackson, of Boston, in 1849. In his report he says: "Three fluid ounces of the water on evaporation to entire dry-

ness in a platina capsule, gave 8.25 grains of solid, dry saline matter, composed of lime, soda, magnesia, sulphuric acid, chlorine, peroxide of iron, and carbonate of lime and magnesia." This class of springs abounds in the Great Basin, and throughout the Territory. They are all more or less impregnated with sulphur and other mineral substances. In some places they are found high up on the sides of the mountains, and, on evaporation, the saline substances form basins, or perhaps miniature lakes, with rims of white all fretted and carved as no human hand could imitate.

Small towns and thriving settlements lie north and south of the Territory for hundreds of miles. They are all divided into wards, and each has its meeting-house, used for all purposes—from dancing to preaching—its presiding bishop, with his counsellors, and teachers. A telegraph-line extends through the entire length of the Territory.

St. George, the capital of Washington County, is a prosperous town of about 3,000 inhabitants, being the centre of some 30 settlements, lying in the southern part of the Territory. This "Southern Colony" is peopled principally by Mormons, presided over by one of the Twelve Apostles, each settlement having a bishop. The district is well cultivated, and produces all kinds of fruit. The grape and pear grow in abundance, and wheat, corn, cotton, sorghum, and the castor-bean, are cultivated with profit. St. George has a handsome stone church, several school-houses, and a theatre. It is reached by stage from Salt Lake City, *via* Fillmore. (See page 109.)

THE NEW MINING DISTRICTS.

For many years it has been known that gold and silver existed in Utah, but it is but comparatively recently that the precious metals have been found in quantity sufficiently great to warrant such an extraordinary rush to the mines as two years have witnessed.

The Emma Mine.—The most profitable mine in the Territory is the Emma, which is situated in Little Cottonwood Cañon, in the Mountain Lake District, southeast of Salt Lake City, and about 25 miles from the terminus of the

Utah Central Railway (see Ogden, p. 109). At a depth of 127 feet the "prospectors" of this mine struck a lode of mineral of vast extent, which it is said yields a profit on shipments made to Swansea, in Wales, of about \$120 a ton. Many thousands of tons of ore are, by actual measurement, in sight in the Emma mine. There are many mineral lodes now being worked in the *Little Cottonwood Cañon*, and also in the *Big Cottonwood* and the *American Fork*, which are adjacent thereto, which yield ore equal to, and in some cases far exceeding in value, that taken from the Emma mine; but in quantity of ore the Emma probably has no equal in Utah.

At the head of Little Cottonwood some rich ore was mined, and a good deal of money was wasted, between 1864 and 1868. For 1869-'70 a certain shaft in that locality, following a small seam of ore, at the depth of 100 feet or so, began to lose itself in an immense bed of argentiferous galena, worth \$200 per ton gross, from which 4,000 to 5,000 tons were taken during eight months ending April, 1871, and shipped chiefly to Liverpool for reduction. The present workings in this mine are said by the initiated to expose 30,000 tons of ore, with no apparent signs of exhaustion. It costs \$70 a ton to reduce this ore to coin or bank-notes, viz.: for mining, \$3.50; sacking, \$5; hauling to the depot of the Utah Central Railway in Salt Lake City, \$10; transportation to Liverpool, \$33.75; charges there for reducing, etc., \$16 coin.

The Emma Mine has recently been sold to a great stock-company, most of the stock being sold in London. Great promises were made, and the project caused a genuine sensation in the European market—with what result remains to be seen.

The Silveropolis and Shamrock.—These mines, which are in East Cañon, 60 miles southwest of Salt Lake City, are very rich. Ore has been taken from the former that assayed over \$20,000 to the ton; and a large quantity taken from the Shamrock has yielded \$27,000 to the ton. These are, indeed, exceptional cases, but all the mines which have been developed anywhere in the Territory are rich, both as to the quantity and quality

of their ores. Old and experienced miners from California and Nevada say that, in all their experience, they never before met with any district which could compare with the mines of Utah. It is a common saying with them, "Wherever we put a spade we find ore;" and the deeper they go, the richer the ore gets. Ores have been found in entirely new districts which yielded more than \$600 per ton net.

Some 25 lots or 20 car-loads, of 400,000 pounds each, of argentiferous galena were shipped by the Pacific Railway to New York during the winter of 1870-'71 for conveyance to Liverpool. A great many new mines are opening. It is estimated that over seventy-five car-loads of ore are shipped from Utah every day, of which the greater part is mined in Little Cottonwood Cañon, at a point about 25 miles from the city in which Brigham Young lives. Gold, as well as silver, has been found in combination with lead and other base metals in Utah, but nine-tenths of the mineral veins yet discovered have been of silver-bearing lead. In describing the great mine in Little Cottonwood Cañon, the expression "lake of mineral" is used as if with reference to its original formation, and surveys have as yet failed to define its extent, but it is believed to be vast. Gold-washing has been carried on extensively for some time in *Brigham Cañon*. It is estimated that over \$3,000,000 worth of dust has been sold from that cañon alone. The lead-ores, or argentiferous galenas, contain from 50 to 1,000 ounces of silver to the ton.

A company of English and New York capitalists has commenced building a road from Salt Lake City to East Cañon a distance of 60 miles, with the intention of continuing it to Tintie, some 20 miles farther. The road taps the different cañons on the route, and it is expected to be completed as far as East Cañon very soon. Brigham Young and the Church party are also building a road, called the *Utah Southern*, running from Salt Lake City through the mining-regions to New Mexico. As already mentioned in *ROUTE XVIII.*, a short railway built by the Mormons connects Ogden and Salt Lake City.

East Cañon City, in September, 1870, consisted of only two or three

log-houses, with a few miners straggling around. In June, 1871, there were 300 houses there, including one first-class hotel, a French restaurant, an ordinary hotel, drug-stores, groceries, dry-goods stores, hardware-stores, physicians, and lawyers in plenty.

A correspondent of the New-York *Sun* who visited the mines in May, 1871, says: "In East Cañon, within an area of a square mile, there is now a population of over 3,000 where eight months ago there were not twenty. And Brigham Cañon, Little Cottonwood, Big Cottonwood, Stockton, Tintic, and half a dozen other places that I visited, have increased in something like the same ratio. The increase of population in the Territory, from these mining discoveries, is from 20,000 to 25,000 souls, and the tide is swelling every week. The price of property has also increased with great rapidity. In Salt Lake City property has advanced fully 100 per cent., and in the mining districts prices have gone up from 500 to 5,000 per cent. A mine which was offered in September for \$6,000, the owners refused \$45,000 for in May, with but little more development than in September.

MORMONISM AND THE MORMONS.

The following sketch of Mormonism is condensed from W. F. Rae's "Westward by Rail:"

"Ingenuous theories have been advanced to explain the origin and success of Mormonism. Attractive pictures have been limned of Mormon society, and plausible reasons put forth in defence of the most reprehensible of Mormon practices. A sweeping condemnation has, in like manner, been passed upon the Saints; it has been denied that they possess a single good quality, or that they are at all better than the savages whom they have displaced. If the best that has been said about them be true, it does not entitle them to universal esteem. If the worst be well founded, if they are indeed hypocrites and rogues, sour fanatics and intolerant bigots, the blame lies at the doors of those who, by unjustly and cruelly persecuting them, labored to make them what they are. Had not Joseph

Smith won the crown of martyrdom, Brigham Young might never have governed as a despot.

"When the angel Moroni disclosed to Joseph Smith the reputed secrets which the Prophet communicated to the world in the Book of Mormon, the minds of the younger men in America were prepared to hearken to a revelation. Almost contemporaneously with the prophetic utterance of the first high-priest of the Latter-Day Saints, Mr. Owen proclaimed to the people of the United States his scheme for achieving universal happiness by grouping mankind in parallelograms. The excitement which this proposal occasioned was due to the avidity of the public for any hints which might clear the way for the regeneration of the world. A like eagerness to experiment with the theories of Fourier was afterward manifested. Joseph Smith had this enormous superiority over other speculators, that, in addition to indicating the path toward a more perfect state, he provided a new religion as a solace for those who, having been buffeted by the waves of doubt, could find no anchorage for their faith. Moreover, his religion had the merit of being a complement to that which was generally accepted, giving precision to what was questionable, widening the boundaries of what was narrow. The heaven which he pictured was a heaven which human beings desired all the more strongly because it was but another and a more perfect representation of the world in which they lived. To the believers in him was afforded the supreme satisfaction of an immediate display of spiritual powers and a present experience of spiritual beings. They were convinced that the Deity had returned to earth and exhibited Himself anew on their behalf.

"Desiring to profit by the privileges accorded to the Saints, thousands enrolled themselves under the banner of Joseph Smith, patiently submitting themselves to his command in the hope of winning the rewards promised to the faithful and the obedient. When these votaries accompanied him to the Far West, and there formed themselves into a society under the name of the Latter-Day Saints, they merely did what others performed when they constituted them-

selves into 'Communities,' and settled on lands purchased with a view to afford them scope for carrying out in practice the social theories which they had accepted as panaceas for all the ills of which society was the prey. That nearly all these communities were soon dissolved was directly due to bankruptcy, and was indirectly caused by the absence of a tie sufficiently strong and lasting to bind them together. Their religion saved the Latter-Day Saints from sharing the fate of Owen's 'New Harmony;' of the many phalanxes in which Fourier's speculations were reduced to practice; of Brook Farm, where the transcendentalists of New England made a vigorous but futile attempt to demonstrate the right manner in which to purge the world of corruption preparatory to ushering in the Golden Age. A deplorable combination of ignorance and fanaticism was brought to bear against the infant Church and the newly-formed association of which Joseph Smith was the head and the originator. The rough dwellers in Missouri arrayed themselves against him and compelled his followers to abandon their settlement. Fleeing to Illinois, they were there treated with a barbarity equally gross and blameworthy. The law proved to the Prophet not a protection, but a snare. Again and again he was imprisoned on paltry pretexts, but his persecutors would not believe in his innocence, even when repeatedly proclaimed by a court of justice. The prison in which he was last immured, pending the progress of another trial, was broken open by armed men, and he was foully slain in cold blood. His followers, instead of immediately dispersing in dismay, banded themselves together with increased ardor, having resolved to dare and endure every thing in the defence of a faith which they regarded with the stronger admiration on account of the hatred it inspired in the breasts of lawless, depraved, and cruel men. The desperate resolve to seek safety in an unexplored part of the country can be paralleled by nothing but the lofty courage which moved the Dutch to resolve upon submerging their entire country and to take ship for the Indian Archipelago, rather than submit to the debasing bondage which would have been their

lot had the King of France become master of Holland.

"Having arrived at the valley of the Great Salt Lake, and assured themselves that the parched desert and the towering mountain were insuperable barriers against the inhumanity and intolerance of their foes, they began to live in the way which seemed the best according to their lights.

"If the Mormons had never learned what it was to battle with difficulties almost superhuman, and to obtain a triumph almost miraculous, they might have speedily cooled in their devotion for the creed they had adopted, or interpreted the accepted doctrines in diverse ways. But the fires of persecution had strengthened their faith. They not only believed implicitly in the divinity of their martyred Prophet, but they were disposed to interpret his revelations in the manner most consonant with their personal experience. They considered themselves the Chosen People with whom God was ever present, and against whose enemies God was always ready to fight. Just as the Puritans, smarting under the atrocious discipline of the Star Chamber, readily adopted as their own the fulminations of the Old Testament against the wicked in authority, and were only too ready, when opportunity offered, to smite with the sword of Gideon, and consider the reeking battle-field, on which their foes weltered in blood, as a pleasing sight in the eyes of the Almighty, so did the Mormons incline to give effect to all the harsh threatenings of the Bible, and to regard as of no account the admonitions to be slow to wrath and abounding in mercy.

"The spirit with which they were ready to resist attack from without was displayed in the works that were requisite in order to render their position secure and their existence easy. They labored at their daily tasks as if they were vindicating their sincerity and demonstrating their piety. Under the double incentive of religious enthusiasm and individual requirements they built houses, planted fruit-trees, tilled fields, and reaped harvests. Even if no ignoble ambition animated their souls, the circumstances in which they were placed furnished an irresistible stimulus to exertion. For none

of them was any way of escape from the Valley open; and, unless all toiled to the uttermost of their powers, to none was subsistence certain. What was effected under these conditions, all Utah bears witness.

"With comparative security and unlooked-for prosperity came a longing for compensation as a reward for their patience under privations, bravery in the face of obstacles, victory over great odds. No longer apprehending the attacks of declared enemies, they desired to evince that they were a peculiar and an exceptional people working out an intricate problem in a new sphere. In their eyes the Old Testament had gradually become an authority of great weight: its statements had commended themselves to their minds; when, then, it was proposed to adopt as their own the rules of the Patriarchs respecting marriage, the proposition met with general acceptance, because it chimed in with the prevailing sentiment. Whether Brigham Young had really received from Joseph Smith the 'Revelation on Celestial Marriage' which he promulgated in 1852 was not a circumstance scanned too closely by those to whom the revelation was addressed. To be different in all things from the Gentiles was dear to the hearts of the persecuted Latter-Day Saints. The indignation which the Gentiles have displayed toward those who openly practised polygamy has tended more than any thing else to confirm the Mormons in their notion as to the divinity of plural marriage.

"Mormon principles have triumphed all along the line; yet, in the thoroughness of the victory, lurks the greatest peril to the cause. The high-handed measures which commanded cheerful assent while the danger lasted have been regarded with aversion and have excited antipathy since the time has arrived for enjoying the fruits of conquest. To the vigor and foresight of Brigham Young, and to the daring and devotion of colleagues not inferior to him in ability, the Mormons are almost wholly indebted for their prosperity. But, even while acknowledging this, they hesitate to yield uniform respect and implicit obedience to those who originally guided their footsteps and sustained their efforts. They

see that the leaders have had their reward in the form of positions of honor and of large possessions. These leaders cling to the authority which they have acquired or usurped. They will not relinquish it save under compulsion. Hundreds refuse to submit to its exercise. Those who have stood forth and challenged the claims of Brigham Young, who point out his shortcomings, who contest his right to demand that he shall be blindly obeyed, and who ridicule his pretensions to be infallible, elicit sympathy and aid from among the mass; and the warfare which was once waged by the Gentiles against the Mormons promises to be succeeded by an embittered strife between Mormonism and Brigham Youngdom.

"The original and crying grievance of the Mormons was that justice had invariably and intentionally been denied them. They were exiled from Missouri, they were expelled from Illinois, because an unjustifiable prejudice had been excited to their detriment. No act of Congress had they infringed, nor had they denied the supremacy of the law of the land. In turn they have become violators of statutes and ruthless persecutors; the Gentiles have suffered at their hands indignities quite as unbearable and injuries nearly as unpardonable as those which they underwent at the hands of the Gentiles. The fountain of justice is tainted in Utah: the juries and judges are corrupt or biassed. A righteous policy requires that these gross abuses should be extirpated, and that in the eye of the law Mormon and Gentile should be absolutely equal. To accomplish this should be the endeavor and aim of American statesmen and rulers. That more than this should be undertaken or achieved, no right-thinking man will desire.

"If Salt Lake Valley were to become the home of a really free people, it would be one of the glories of the American Union. Its situation is unrivalled in this part of the continent. A temperate climate blesses the inhabitants with good health; a fruitful soil yields them food in abundance. The surrounding mountains are rich in minerals; the multitudinous streams are alive with fish. Nature has designed this valley to be a terrestrial paradise; hitherto, the doings of

man have frustrated, rather than forwarded the designs of Nature. I found the Mormons, as a body, very backward and ignorant when compared with the other dwellers on the American Continent. I found them reluctant to embody their thoughts in words, afraid to speak their minds lest they should be punished for giving utterance to what was obnoxious to those in high places. The leaders and rulers of the Mormons are, for the most part, shrewd and determined Yankees, who exercise a control over the multitude as grinding and despotic as that of the worst tyrants in history. Neither Jew nor Christian can safely and easily establish himself in Utah, either for the sake of pleasure or for the pur-

poses of trade. All non-Mormons are subjected to a system of persecution skillfully organized and conducted with a view to their expulsion from the Valley of the Great Salt Lake. In the Territory of Utah I found a parody on the religion of the Bible and of the Koran, sanctioning and prescribing the treatment of women, not as intellectual human beings, but as mere human toys. Having had this experience, I am unable to accept, as a reply to all objections and a counterbalance to all drawbacks, the incontestable facts that President Young preaches the gospel of labor, and that Mormon orchards yield annually many thousand bushels of large ripe peaches and rosy-checked apples."

NEVADA.

NEVADA forms the western side of the Great Basin, enclosed by the Rocky Mountains on the east, and the Sierra Nevada range on the west; the average elevation of its valleys being at least 5,000 feet above tide-water, while very little of it is as low as 4,000. It is bounded on the north by Oregon and Idaho, on the south and west by California, and on the east by Utah, and embraces an area of about 83,500 square miles. It extends from 37° to 42° N. lat., and from 115° to 120° W. long. The length north and south is about 348 miles; the greatest breadth is about 265 miles.

The history of Nevada dates from a comparatively recent period. The Territory was organized March 2, 1861, up to which time it formed part of the Territory of Utah. Prior to this, the Mormons were in the majority, and the Gentiles were dissatisfied with their own condition. Having resolved upon separating themselves from the Mormons, the latter met together, passed resolutions, and formed a territorial organization. Congress approving of their conduct, gave validity to the arrangements they had made. The President appointed a Governor over the new Territory; the number of citizens rapidly increased; their ambition prompted them to desire

admission into the Union, which was granted them, and in October, 1864, Nevada became a State.

The climate is dry, and similar to that of Utah. Rain seldom falls between the months of April and October.

The population of Nevada in 1860 was 6,857. In the census of 1870 it is given as 42,677.

Mountains, Soil, etc.—Nevada is an elevated, mountainous, and semi-desert region, the western part of which is on the eastern slope of the Sierra Nevada. The surface is broken by a succession of mountain-ranges and intervening valleys and sandy plains, the waters of which never reach the sea. In the north central part is the range called *Humboldt Mountains*, and in the eastern part of the State that called the *East Humboldt Mountains*, which extend in a northerly and southerly direction. Westward from the latter is a long, parallel metalliferous range called the *Toiyabe Mountains*. A great part of the Great Basin, or *Fremon't's Basin*, is included in Nevada. This basin has an elevation of about 4,000 feet above the level of the sea. The soil is generally sterile, and in many parts covered with wild-sage. Nevada is almost without wood, save scrubby pines and cedars.

Although neither diamonds, rubies, emeralds, nor other precious stones, have yet been found in this State, many stones suited to the uses of the lapidary, from their hardness and beauty, are abundant. Jasper of every variety and shade of color is met with throughout the State; cornelian is to be found in many places, and is quite abundant at Cornelian Bay, Lake Tahoe; agates are also plentiful at Lake Tahoe, at San Antonio, Nye County, at Aurora, and in many other localities. Fine moss agates are often picked up by prospectors in their rambles among the wild mountain-gorges and over the stony table-lands. Amethysts are quite abundant in the various mines upon the Comstock; those found in the mines at Gold Hill are the largest and best. Garnets are to be found in Washoe County, near Steamboat Springs, but they are of an inferior quality. Chalcedony is to be found almost everywhere in the State. Fine specimens may be obtained at American Flat, and still finer ones in the neighborhood of Aurora. At the south end of Carson Valley, on the Aurora road, good specimens of chrysolyte may be found. The precious or fire opal has never yet been found in the State, though the common and wood opal occur. Petrified wood is abundant, in fact, whole trees may sometimes be seen. It can be made into very handsome cane-heads and seals, when cut and polished. In many places in the State geodes are plentiful, and nearly all of them, when broken, are found to contain beautiful crystals of various colors. Besides the stones already mentioned, there are fine quartz-crystals, and many specimens of quartz containing gold and silver are to be seen in cabinets, which would make fine soals if properly cut.

RIVERS AND LAKES.

Nevada is generally arid, and has no great rivers. The largest is the *Humboldt River*, which rises near the northeastern extremity of the State, flows westward in the greater part of its course, drains the northern portion, and empties itself into Humboldt Lake. In the south-westerly part is the *Walker River*, which flows into *Walker Lake*. *Carson River* rises in the southwest, and enters *Car-*

son Lake after a course of about 100 miles. As has been stated elsewhere (page 115), some streams of Nevada are absorbed by the sands. There are several lakes in the State having no outlet.

Humboldt Lake is nearly 20 miles long, and 8 miles wide.

Pyramid Lake is situated near the western portion of the State. It is about 35 miles long, and 10 wide; is enclosed by precipitous walls of rock which rise to a great height, and owes its name to a pyramidal mount which is about 600 feet above the surface of the water. The lake abounds in trout of large size and fine flavor, is of considerable depth, and is entirely surrounded by precipitous mountains two or three thousand feet high. The scenery is exceedingly grand. Nevada, in fact, is one of the most picturesque and interesting countries in the world, and is almost without a rival for the grandeur and sublimity of its mountain-views.

THE SILVER MINES.

The State of Nevada abounds in rich stores of mineral wealth, including gold, silver, quicksilver, lead, antimony, and other precious metals. It is for its silver-mines, however, it is most celebrated. The mining-region of Nevada is described as an elevated semi-desert country; its surface a constant succession of longitudinal mountain-ranges, with intervening valleys and plains, most of which are independent basins, hemmed in by mountains on all sides, and the whole system without drainage to the sea. As early as 1859, discoveries of silver in Nevada had attracted the notice of adventurous miners in all parts of the West. Ten years had then elapsed since the gold excitement in California started and fascinated the world. The California quartz-mines were rich as ever, but the individual miner found great difficulty in getting a return for his labor equal to that which he could easily command before the water-courses had been rifled of nuggets, and all the gold-dust had been sifted from the sand and gravel. To these disappointed and desponding miners the news, that silver was even more abundant in Nevada than gold had ever been in Cali-

formia, was received with great joy, and an immediate rush was made to the new Potosi. The yield of the great Comstock lode was such as to verify to the letter the most favorable statements, and to gratify the most sanguine hopes.

VIRGINIA DISTRICT.

Virginia City, in Western Nevada, was built within easy reach of this lode, on the slope of Mount Davidson, at an elevation of 6,200 feet, and the whole district was honeycombed with mines. The city, which has a population of about 10,000, has many good public buildings and elegant private dwellings. It connects with the Central Pacific Railway, at Reno, by stage. (See page 116.)

The estimated value of the gold and silver obtained in this district during ten years is about \$100,000,000. Sixteen million dollars are believed to be the gross annual yield. In commenting on this fact, a recent traveller says: "The sum is enormous, yet the proportion of actual gain is very small. The net profit is understood to be not greater than half a million dollars. Worse than the insignificance of the return is the prospect that, unless a desperate experiment prove successful, these mines will have to be abandoned altogether. To avert this calamity a tunnel is now being driven into Mount Davidson with a view to intersect the great Comstock lode at the depth of 2,000 feet. The distance to be driven is four miles. Mr. Sutro is the projector of the tunnel, and it has been named after him. Opinions are divided as to the merits of the enterprise. Its very magnitude is regarded by some as an insuperable bar to its success, while more daring and confident spirits predict the brilliant triumph of the gigantic undertaking. One thing certain is, that the Sutro Tunnel will either beggar its promoters, or else be the means of making each of them a Cæsus."

REESE RIVER DISTRICT.

To the east of Virginia City is another district, rich in silver deposits, which attracted miners in 1862. This is known as the Reese River District. The mines in it do not yield large quantities of ore, but the ore found in them is of a superior kind.

Austin City, the county-seat of Lander County, is located near the summit of the Toyabe range of mountains, in the midst of the Reese River mining-region. The characteristic ores of this region are chlorides of silver. Austin and its vicinity have a population of about 4,500. It connects by stage with the Union Pacific Railway at Argenta. (See page 115.)

The spot which at present surpasses all others, which has been more than a nine-days' wonder, and the theatre of an excitement which tends to increase rather than abate, which has been the haven of miners disgusted with the reality elsewhere, and is one of the most notable among the many rich repositories of silver treasure in the State of Nevada, is the White Pine.

WHITE PINE DISTRICT.

This district, which lies due east of Virginia City, was first prospected by some adventurous miners who left Austin City in the spring of 1865 with the design of carefully exploring untrodden wilds in the hope of making their fortunes. During many months of hard toil, continued with indomitable vigor, and of trying privation borne with unflinching spirit, they prosecuted their search for silver. Spring and summer passed, and it was not until the autumn that the prize was won. They then satisfied themselves that what is now known as Treasure Hill contained incalculable stores of precious minerals. On the 10th of October they assembled, made speeches and passed resolutions whereof the gist is contained in the mining records of the locality. The entry runs as follows: "A company of miners met on the above day for the purpose of forming a district. Motion made and carried that this district be known as the White Pine District, bounded on the north by the Red Hills, and running thence south to a point whence the mountains run into a foot-hill, thence east twelve miles, thence north, and thence west to the place of beginning." The district thus mapped out had no attraction of scenery or site to recommend it. The trees which grow in the valleys or on the mountain-sides are few in number and small in size.

Desolation and sterility dominate the landscape. All the year round the air is chilly, while, during the long months of winter, storms rage with almost incredible fury. The blast sweeps along charged with snow, and dust, and gravel. The name *Po-go-nip*, originally given to thick white clouds of cold vapor, which sometimes veil the mountain-tops and sometimes fill the valleys, is employed to characterize these terrible storms. "Tell a miner acquainted with White Pine that you have had to face the *Po-go-nip*, and he will know at once that all your powers of endurance have been put to the test."

Hamilton City, Shermantown, and Treasure City, are the principal centres of business in the district of White Pine.

Hamilton City is the capital of the county of White Pine. It is situated at the base of Treasure Hill, 115 miles from Palisade, on the Central Pacific Railway, from which place it is reached by stage. A daily newspaper is published in the place.

Treasure City is two miles and a half above Hamilton, and is perched near the summit of Treasure Hill, at an elevation of 9,100 feet above the level of the sea. It is close to the Eberhardt, one of the richest of the White Pine mines, and it is to this it owes its business advantages, as, on account of its exposure, and the scarcity of wood and water, the location is in every way inferior to that of the towns at the base of Treasure Hill, which are already ahead of it in population. A daily newspaper is printed here. Treasure City is reached by stage from Elko or Austin. (See page 114.)

The *Eberhardt* mine is to White Pine what the famous Gould and Curry is to Virginia City. Not till the spring of 1868 was it vigorously worked, and since then the returns have been enormous. Its value has been rated at millions: at one time it was bought for twenty-five dollars. A trustworthy writer has given the following sketch of the appearance of the mine underground: "At the door a pack-train of Mexican mules is being loaded with the precious ore for the mill two miles to the southwest, and two thousand feet lower down. In the shed men are busy at a great pile of brown, blue,

red, green, and black rock, breaking it to pieces and sorting it, the richest being thrown aside for the crucible, and the rest going into the sacks to be packed away to the mill. There is a princely fortune in this pile of ore, which to the uninitiated eye is but a heap of broken rock fit only for building walls or macadamizing public streets. Over one of the hoisting-shafts there is a large wooden bucket with a rope and rude windlass, such as you might see on the prospecting-shaft of the poorest miner. It has served for hoisting all this wealth to the surface. In this bucket we descended into the mine. A long, narrow chamber, with dull, dark walls, and a few men at work with pick and gad, were all that the first glance revealed, and there was a momentary feeling of disappointment. A closer inspection showed that the walls, the ceiling, the floor, were silver; even the very dust on the floor was silver. This lump will yield five dollars a pound; this six, this seven, this eight, and this, which will flatten like lead under the hammer, is worth within a fraction of ten dollars a pound. They tell us that there is a million dollars' worth of silver piled up before our eyes in this gloomy cavern, and such is indeed the fact."*

Keystone, Aurora, and Virginia, are the names of other productive mines.

A recent report of the State Mineralogist, for the two years ending with 1870, shows the ores and metal shipped from Eastern Nevada, by railroad, in 1869 and 1870. The figures for 1870 close with November. In 1869 the amount sent to California was 2,947,535 pounds; 1870, exclusive of December, 12,030,609 pounds. The increase since the opening of the railroad, and facilities for shipment, has been nearly 600 per cent. In twenty-three months 9,489 tons of ore were shipped, worth, on an average, \$100 per ton, or, in the aggregate, \$948,900. In addition, there were shipped from Eastern Nevada metal, lead, and silver, extracted from base metal ores, in 1870: To the West, 3,907,960 pounds; to the East, 3,929,431 pounds. There are no certain means of ascertaining the amount of pure bullion shipped from Eastern Ne-

* Mr. A. S. Evans, in *Overland Monthly* for March, 1869 p. 279.

vada since January, 1869. The railroad has increased the yield of mines in twenty-three months, so as to add \$2,000,000 to the real wealth of the country, and the production increasing at the rate of from 300 to 400 per cent. per annum.

Idlewild Cave.—This romantic name is given to the mammoth cave discovered at White Pine about a year ago, when it was partially explored by a party of five gentlemen. It is situated near the north end of Blue Hill, a short distance west of the Truckee Mine, and first came into notice by the bottom of the shaft then being sunk in the Idlewild Mine "dropping out." The party was lowered down this shaft thirty feet to the entrance of a steep incline nearly two hundred feet in length, formed by the hand of Nature. On each side of the incline are large vaulted chambers, from fifteen to thirty feet in length and width, and about

twenty feet in height—the roofs and walls hung with stalactites of beautiful colors and fantastic forms—the arches in the chambers being composed of large masses of them. The entrance to the incline from the shaft is small—sufficient only to admit the passage of an ordinary-sized man crawling through the opening. At the termination of the incline is an immense chamber which could only be judged of by the eye—the entrance being choked up by a large boulder. Enough was seen to know that its size was much larger than any yet explored. There is a strong draught downward from the entrance, showing that there must be another opening far down in the bowels of the earth to some unknown region, or else that a living stream of water flows underneath. The only living thing seen in these silent vaults was a bat flitting through the chambers.

CALIFORNIA.

THE State of California, without doubt, contains a greater number and variety of natural objects of interest and beauty—more to impress the tourist with the magnitude and resources of the country and the future which is before it—than any State in the Union. Independent, however, of its numerous and varied scenic attractions, California has a history all her own, which must ever be replete with interest for the traveller, the more so as he witnesses the astonishing progress which it has made during the last twenty years. The peninsula of Lower California was discovered by the expeditions of Cortez in 1534–'35. Upper California was seen by Cabrillo in 1542. Sir Francis Drake visited the coast and discovered Jack's Harbor, on the bay of Sir Francis Drake, a few miles to the northward of the bay of San Francisco, in 1579. Francisco Vila landed in 1582, and Juan del Fuca in 1595. In 1596 a military post was established at Santa Cruz by Sebastian Viscaino. In 1769 the bay of San Francisco was discovered by the early Spanish missionaries, who established some eighteen

missions in the country; these continued to flourish until after the Mexican Revolution in 1822, when they fell into decay under the new government.

Captain John Sutter established himself near the present site of Sacramento City in 1839. In 1846 the war broke out between the United States and Mexico, which resulted in the conquest and purchase of California by the United States.

The treaty ceding California and New Mexico to the United States was dated at the city of Guadalupe Hidalgo, February 2, 1848; ratified by the United States, March 11, 1848, exchanged at Queretaro, May 30, 1848, and proclaimed by the President, July 4, 1848. California was organized as a State, December 15, 1849, and admitted into the Union, September 19, 1850.

Gold was discovered in January, 1848, by James W. Marshall, in the employ of Captain Sutter, at Sutter's Mill, on the south fork of the American River, near the present city of Sacramento. From this date the unprecedented progress of the country commenced.

The State of California extends along the Pacific coast nearly 750 miles from southeast to northwest, with an average breadth from east to west of 250 miles, containing an area of 187,500 square miles, or nearly twice the size of Great Britain. The whole country naturally falls into three great divisions, viz.: First, the great valleys of the Sacramento and San Joaquin Rivers, with all their lateral valleys; all of whose waters meet in the bay of San Francisco, passing through the Golden Gate to the Pacific Ocean. Second, the portions of the Coast Range north and south of the bay of San Francisco, where the country is drained by streams falling directly into the Pacific, as the Klamath, Eel River, Russian River, the Salinas, San Pedro, and San Bernardino, with others of lesser magnitude. Third, the country east of the Sierra Nevada chain, the waters of which fall into the Great Basin, having no outlet to the ocean.

Mountains.—The ranges of mountains comprise the Sierra Nevada, which divide the State on the east from the Great Basin, and the Coast Range on the West. Between the Sierra Nevada and the Coast Range lies the extensive country of the first division, a valley of some 500 miles in length, with an average breadth of 80 miles, with a rich soil and warm climate, producing all the fruits of the warm region, with the products of the more temperate climes. The lateral valleys, with an elevation of from 1,000 to 5,000 feet above the level of the sea, produce the more hardy fruits and grains common to the more northern States of the Union.

Timber.—A belt of gigantic timber, consisting of pines, firs, cedars, oaks, etc., etc., extends the entire length of the Sierra Nevada range, affording a supply of wood that can never be exhausted. The redwood forests furnish the ties used for the construction of railroads on the Pacific coast, and the supplies for the South American railway lines are drawn entirely from California.

The mining-region also stretches along this range, extending on the north into the Coast Mountains, passing into Oregon with an average breadth of 40 or 50 miles, at some points extending from the

valley to near the summit of the Sierras, a distance of 100 miles in breadth.

The second division, located near the coast, contains thousands of beautiful valleys, some of which are very extensive, as that of the Salinas, whose outlet is at the bay of Monterey and the country adjoining Los Angeles and San Diego. This portion has a cooler climate than the lower valleys of the first division, owing to their proximity to the sea. It yields every variety of product, from the orange and other fruits of the warm region at Los Angeles, to the more temperate clime and products of Humboldt Bay and Trinity River at the north. Gold is also found, and the richest quicksilver-mines in the world.

Of the third division, the country east of the Sierra Nevada, but little is known, especially to the southeast, yet many fine valleys occur, one of which is Carson's Valley, which now contains a large population.

The great mineral belts of California are four in number, and are thus described by the San Francisco *Alta California*, in a recent issue of that journal: "Beginning at the first foot-hills above our great agricultural plains we have the copper belt, from which we have not made material realizations. The next belt, as you ascend the mountain-range, is that in which the great mother-vein is found. The Hayward, the App, and the Mariposa Companies' gold-mines, are in this belt. There is much silver in the ores. The mother-vein usually exceeds twelve feet in thickness; it has short pay-chutes and long stretches of unproductive quartz. The pay-chutes are narrow at the outcrop, and seldom silver more than eight dollars of metal to the ton of selected rock. But the chutes widen and grow richer in depth; till, at 400 to 600 feet, the yield is sixteen to twenty dollars to the ton. Generally the rock is workable by ordinary mill process; but not over sixty per cent. of the gold is saved by present methods. The Hayward vein on this great lead proves that at two thousand feet there is no sign of giving out.

"The third belt, as you ascend, is known as the Limestone Range, to distinguish it from the others where slate and granite are the leading rocks. This

third belt is also known as the Pocket Range, because the pay-rock occurs, not in regular clutes, but in pocket deposits. Labor is too high to cover the risk of finding these widely-separated pockets, but the gold in them is more profuse than in belt No. 2. Therefore, this belt is but little explored.

"The fourth and last belt yet known to us is well up in the Sierras. It has not attracted much attention till recently. It is only where there has been a breakdown in the mountains, that the quartz veins show an outcrop here, which renders prospecting difficult. The prevailing rock is slate. It is in fissures crossing this rock that quartz-veins occur, and it is only in quartz that gold is found, in all our belts. The ores of this belt are distinguished by their having a large proportion of base metals, viz.: sulphuret of iron, lead, zinc, and antimony, but they are also richer in gold generally, and the gold is more than usually disseminated through the rock. The metal appears in pay-chutes, as in belt No. 2, and the encasing rock is so firm that little timbering is needed in the workings. This belt has been very little explored. The Confidence mine and the Soulsby, in Tuolumne County, are examples of the richness of ores in this belt. Lately, some of our San Francisco capitalists have opened out three veins in this belt, near the famous Big-Tree Grove of Calaveras, where the richness of the ore has induced them to erect a first-class twenty-stamp mill. This development is drawing more attention to that high mountain-range."

The mines of gold, silver, quicksilver, coal, and iron, are of great richness, and many of them are well worked. It has for some years been supposed that the gold and silver yield of California was likely to become less and less, so that in a generation or so the ore would be exhausted. There is nothing to lead to this conclusion. So far, at least, as the deposits at the San Francisco Branch Mint are an evidence, the yield is largely increasing. These deposits for the first eight months of 1870 were: of gold, 719,211 ounces, against 532,686 ounces in 1869, and 398,081 ounces in 1867. The silver deposits in the same time were

109,104 ounces, against 99,661 ounces for the previous year. California is still the greatest gold-producing region in the world.

Manufactures.—According to the census of 1860, California had, in that year, 3,505 manufacturing establishments, with a capital of \$23,682,593, employing 24,266 persons, consuming raw material worth \$16,558,636, and producing manufactured articles worth \$59,500,000. The figures for 1870 show a great increase, the average product of the few previous years being \$75,000,000 a year.

Fruits, Vegetables, etc.—California is a great fruit-producing State. The size to which its vegetables attain is almost incredible, pumpkins weighing 250 pounds, squashes 150 pounds, beets 100 pounds, and carrots 30 pounds; but, astonishing as these figures may seem, it is easy to understand how these results are obtained where growth never ceases. The apple, pear, strawberry, etc., reach proportions no less surprising. The California fruit crop of 1870 is given by the San Francisco *Bulletin* as follows: Apples, 20,755,000 pounds; apricots, 2,133,775; blackberries, 1,050,000; cherries, 1,129,625; currants, 697,000; figs, 5,066,000; grapes, 11,644,000; nectarines, 720,000; peaches, 7,932,000; pears, 9,828,000; plums, 2,952,250; prunes, 337,750; raspberries, 610,000; strawberries, 1,957,000; quinces, 749,750; oranges, 2,466,000; lemons, 226,000; limes, 75,000; citron, 100,000. It is estimated that at least 90 per cent. of all these crops go to or through San Francisco, and the aggregate value is greatly over \$3,000,000.

The climate is generally salubrious and genial, although the various geographical divisions of the State have various temperatures. The winters are cold in proportion to altitude in the Sierra Nevada. North of lat. 35°, fogs prevail from May to September, keeping the summers cool on the immediate coast, but this influence decreases as one recedes from the ocean and the summer days become hotter. The nights, however, are always cool, except in the Colorado Desert.

The population of California in 1860 was 379,994; in 1870 it was 560,285.

The total valuation of real estate and personal property in the State is given

by the census of 1870 as \$269,644,088, against \$139,654,667 in 1860.

ROUTE I.

TO LAKE TAHOE AND DONNER LAKE.

By Western Pacific and Central Pacific Railways, and Stage, or by Steamer, via Bay of San Francisco, Bay of San Pablo, Sacramento River, Central Pacific Railway, and Stage.

THE two principal and most frequented lakes in California are Tahoe and Donner Lakes. They may be reached from San Francisco by two ways: First, by taking the *Western Pacific Railway* cars (from Davis Street, near the Pacific Street wharf) for Sacramento, there connecting with the *Central Pacific Railway* for Truckee, and thence to the lakes by stage; or by taking the California Steam Navigation Company's steamer (at Broadway Street wharf) for Sacramento (touching at Benicia, Collinsville, Rio Vista, and Freeport (113 miles), taking the Central Pacific Railway cars for Truckee, and travelling the rest of the distance by rail and stage.

The route by rail between San Francisco and Truckee is the same as ROUTE XVIII. (See pages 116-121.)

California Steam Navigation Company's Line, LANINGS.—San Francisco to Benicia, 30 miles; Collinsville, 75; Rio Vista, 90; Sacramento (connects with steamers for Marysville and Red Bluff, and with stages for all parts of northern California and Oregon, also for Stockton), 117.

Bay of San Francisco.—Leaving the Broadway Street wharf, our route lies northward up the Bay of San Francisco, the island of *Yerba Buena*, which belongs to the United States, and is occupied as a fortification, lying to the right, and serving as a partial wind-screen for the town of Oakland on the east side of the bay, against the blasts, which, during the summer months, come fiercely through the narrow entrance of the harbor. The island completely commands the city and entrance to the bay. It was called *Yerba Buena* by the Spaniards, from its production of a peculiar plant. The later Saxon settlers gave it

the less euphonious name of "*Goat Island*."

Farther on than *Yerba Buena*, and to the left of the steamer route, is *Angeles Island*, of several hundred acres extent, separated from the western shore of the bay by the narrow but deep *Raccoon Strait*, through which flows a strong tidal and river current, to be duly considered by vessels entering the harbor on an ebb-tide, to avoid being driven on the south shore of the inlet. The island shuts from the view of the ascending navigator of the bay the little harbor of *Sausalito*, off its west side, where formerly whalers of the North Pacific, and subsequently the founders of San Francisco, obtained supplies of fresh water. Thirteen miles from the city, on the west side of the bay, just after passing an insular "*Red Rock*," stands

Point St. Quentin, on which is built the State Penitentiary; and about three miles to the northeast of this, at the head of a snug little harbor, the village of San Rafael is seen nestling in a pretty setting of verdure-clad hills.

San Rafael (15 miles) is the capital of Marin County. The absence of ocean winds and fogs makes it a favorite spot for the country residence of wealthy San Franciscans. It connects by railroad to San Quentin Landing, and with ferry-boat to San Francisco. The population is about 1,000.

Bay of San Pablo.—A short distance north of Point St. Quentin is the narrow entrance to the *Bay of San Pablo*. The passage is bounded on the east by *Point St. Pablo*, and on the west by *Point St. Pedro*; two rocks near the former and two near the latter, called *The Brothers and Sisters*, by a little stretch of fancy may be regarded as being occupied in the pious duty of washing the feet of the apostolic fathers. Many rocky islets scattered over the face of the bay add to its picturesque scenery. The background of the shores, being offshooting spurs of the Coast Range of mountains, on both sides, adds to the beauties of the scene by its graceful undulations, especially when the foot-hills are clad in the livery of early spring. The Bay of San Pablo looks like a rapid and muddy embouchure of the great Sacramento River, bearing the

floods of its turbid tributaries to the ocean through a vast valley of the Coast Mountains. To the northeast is *Mare Island*. At this place is the *United States Navy-Yard*, one of the most extensive owned by the Government, and the only one upon the Pacific coast. It embraces extensive shops, storehouses, and a sectional dry-dock. A strait separates the island from the main-land, on which, opposite to the public buildings, is the old town of Vallejo, which will be described in ROUTE II. of CALIFORNIA. *Napa Creek*, which drains a part of the fertile valley of the same name, and affords water communication by steamboat between that rich country and San Francisco, empties into Mare Island Strait, a short distance above Vallejo.

Leaving all these to the left of our route, we pass eastward through the Straits of Carquinez, which connect the Bay of St. Pablo with the Bay of Suisun.

The Straits of Carquinez are about 8 miles long, and vary from $\frac{3}{4}$ to 2 miles in width. To the north shore of the straits, at the head of ship-navigation, stands the town of Benicia, our first stopping-place.

Benicia (30 miles) is so called in honor of the wife of the brave old Mexican frontiersman, General Vallejo. It was formerly the capital of the State. Near the town are the arsenal and barracks belonging to the United States Government. Many excellent educational establishments, among which the only law-school in the State, are situated here. Extensive cement-works, tanneries, and a large flouring-mill, form the chief element of the local industry. A company has also been organized, and the preliminary steps taken, for the early construction of a railroad from Benicia up the Sacramento River Valley to Red Bluff, with a branch to Sacramento. The connection with San Francisco will be by steamers from Benicia. It will traverse the prosperous counties of Solano, Yolo, and Colusa, and add greatly to their prosperity. Steamers for Stockton and Suisun, as well as for Sacramento, touch at Benicia. Population in 1870, 1,660.

The Bay of Suisun.—We now enter the Bay of Suisun, another arm or continuation of the great Bay of San

Francisco; here the waters of the Sacramento and San Joaquin unite, the former coming in from the north, and the latter from the south. The growing village of Suisun has become the outlet of a rich agricultural region on account of being connected with the north side of this bay by means of a navigable slough.

Sacramento River.—Passing through the bay, we soon enter the mouth of the Sacramento River, about 45 miles from San Francisco. Much of the land adjoining this bay and the Sacramento and San Joaquin Rivers is marshy, covered with *tules*, a kind of bulrush. Abundance of fine salmon are caught in this river. Proceeding toward Sacramento, we pass a low range of hills to the left. Farther on the banks are low and the country is marshy. Beyond, trees appear, and the river presents a more beautiful appearance. Sometimes in autumn the dry tules are on fire for miles, presenting a magnificent appearance to the passenger on the steamer. The unimportant landings of *Collinsville* (75 miles) and *Rio Vista* (90 miles) are passed, and we arrive at length at

Sacramento (117 miles). This city, the capital of California, has been fully described in ROUTE XVIII. (See page 118.)

At Sacramento we take the *Central Pacific Railway* cars for Truckee. The route between these two cities has been described from page 116 to 118. At Truckee carriages are in waiting to carry passengers to the Donner Lake Hotel, and there are stages about to start for the Tahoe Hotel. (For description of Lakes Donner and Tahoe, see pages 116, 117.)

ROUTE II.

SAN FRANCISCO TO WHITE SULPHUR SPRINGS, CALISTOGA SPRINGS, THE PETRIFIED FOREST, THE GREAT GEYSERS, AND SKAGGS SPRINGS.

By Steamer, via Napa Valley Railway, and by Stage.

DISTANCES TO THE GEYSERS.

San Francisco to Vallejo, 28 miles; Suscol, 39; Napa City (connects with stages for Suscol, Sonoma, Santa Rosa), 44; Yountville, 53; St. Helena, 62; Calis-

toga (connects with stages for Cloverdale, Healdsburg, Geysers) 71; Great Geysers, 99.

Steamers leave Front Street, San Francisco, daily at 8 A.M. and 4 P.M., for Vallejo (28 miles), connecting with first-class express-trains on the *Napa Valley Railway*, for Calistoga Springs, and by Foss's stages every morning for the Geysers, and by stage for Skagg's Springs.

Fare to Calistoga \$3.50. Until reaching the Straits of Carquinez, the boat follows the track of the Sacramento boats. (See page 267). Steering to the left, we enter the narrow sheet of water between Vallejo and Mare Island. (See page 268.)

The route to Calistoga lies through *Napa Valley*, which is about 50 miles long, 1 to 6 wide, and in point of cultivation and beauty second to none on the coast.

Vallejo (28 miles), the southern terminus of the *California Pacific Railway*, is a promising port, from which the grain of Napa, Solano, and Yolo Counties is shipped. The harbor is 3 miles long and half a mile wide, separating the city from Mare Island, as has already been stated. Vallejo has the first grain elevator on the Pacific coast, and vessels from the chief Atlantic and European ports load grain at its wharves. The population of the town in 1870 was 6,392.

Suscol (39 miles) is the point where, in 1835, General Vallejo, with a force of 600 Mexicans, defeated a large number of Indians, in a bloody and decisive battle, in which the latter lost 200 killed, and several hundred wounded.

Napa City (44 miles) is a thrifty place of about 3,500 inhabitants, in the centre of the valley, and surrounded by a very fine agricultural region, rich in fruits of all kinds, and in immense fields of grain which stretch in every direction. The climate is equable and salubrious. A stage makes two trips a day to and from Sonoma, connecting with the trains at Napa City; fare, \$1.00. A tri-weekly stage runs from Napa City to Monticello, in Berreyessa Valley (24 miles), passing on to Knoxville, Lake County. There are many beautiful drives in the environs of Napa, viz.: to Santa Rosa, taking in the famous wine-cellars of Sonoma, on the way; to Healdsburg and the Gey-

sers; to Calistoga; and to the White Sulphur Springs.

The Napa Soda Springs are in the foot-hills about 5 miles northeast of the town. The water is rather palatable, and is said to possess valuable medicinal properties.

Pope Valley Quicksilver Mines are about 35 miles northeast of Napa City. Their yield from June, 1870, to May, 1871, was 1,175 flasks, worth \$76,116.39. About 50 men are employed, and six retorts are in use, which will fuse from 250 to 300 flasks a month. The valley is about 10 miles long and from one to two miles broad. It is finely cultivated.

Yountville (53 miles) is in a famous wine-growing district. The quantity of wine kept in store is said to be about 100,000 gallons. Two hundred acres of vines were planted in Yountville in the spring of 1871.

St. Helena (62 miles) is a pretty village, which promises to be the centre of the grape and wine trade for this locality. From this place (and also from Calistoga) stages run daily to White Sulphur Springs.

White Sulphur Springs, a quiet and pretty place, is a favorite summer resort for San Francisco families. The springs are situated in a deep and picturesque gorge of the mountains, which rise on either side to a height of about 1,000 feet. The waters are quite celebrated for their medicinal properties. There is a well-kept hotel at the place.

Calistoga (71 miles), the terminus of the *Napa Valley Railway*, is a handsome little town, with two hotels, and cottages for the use of families. It is supplied with pure water from a reservoir on the adjacent mountain-side, and there are three bath-houses supplied with water from neighboring springs. The public warm swimming-bath, 40 feet square, is one of the features of the place. The scenery is exceedingly picturesque, the well-cultivated fields, green lawns, sunny slopes, and shaded villas, contrasting pleasantly with the wild grandeur of the rugged mountains. Calistoga lies in a valley a mile in width, encircled by hills and mountains, covered with oak, pine, maple, ash, and madrona. It is

the centre of a large teaming business, the various routes connecting it with Russian River Valley, Lake County, and other points. Charges at the *Calistoga Hotel*, \$3.00 a day. Stages leave Calistoga twice a week for *Lower Lake*, and irregularly for *Harbin's Springs*, 20 miles north, a place much frequented by sufferers from rheumatism. Stage leaves daily for Healdsburg.

The Petrified Forest, the most recently discovered of the great natural wonders of California, is located five miles southeast of Calistoga Hot Springs, about 10 miles south of the summit of Mount St. Helena. It will repay the tourist to go the few miles out of the route to the Geysers to examine the locality. The existence in this place of several petrified trunks of trees was first made public in July, 1870, by Mr. Charles H. Denison, of San Francisco. Soon afterward he wrote to the *Bulletin* of that city, giving an account of the discovery.

He says: "A careful examination of the locality where the first prostrate trunks had been discovered, made it evident that these now on the surface had all been weathered out of the volcanic tufa and sandstones, which form the summit of this part of the mountain-ridge. Several large silicified trees were, indeed, subsequently found in the vicinity, projecting from the side of a steep bluff, which had partially escaped denudation. Portions of nearly one hundred distinct trees, scattered over a tract three or four miles in extent, were found by our party; and the information we received from hunters and others, familiar with the surrounding country, renders it more than probable that the same beds, containing similar masses of silicified wood, extend over a much greater area.

"The fossil trees washing out of this volcanic tufa were mostly of great size, and appeared to be closely related to some of the modern forest-trees of the Pacific coast, especially the gigantic conifers. One of the prostrate trunks examined during our explorations was only partially exposed above the surface, dipping with the strata about 10° to the northward. Its accessible portion, evidently but a small part of the original tree,

measured sixty-three feet in length, and, although denuded of its bark and very much weathered, was over seven feet in diameter near its smaller end. On a high summit, about a quarter of a mile west of this point, two other large trunks were found, one about five feet in diameter, lying east and west, with thirty feet of its length above the surface. The other rested directly on this, dipping with the strata to the north. The exposed fragments of this trunk indicated that the tree, when standing, could not have been less than twelve feet in diameter. These two trees had apparently fallen not far from where they were embedded, as the bark was well preserved both on the main trunks and on the small branches, numerous fragments of which were lying near. Many other trees were found, nearly or quite equal to these in size; and all those examined indicated a very large general growth for the original forest.

"All the trees discovered were prostrate, and most of them, after their petrification, had been broken transversely into several sections, apparently by the disturbance of the enclosing strata. A majority of the trunks had a general north and south direction, probably due to the course of the current that covered them with volcanic material, or perhaps indicating, in some cases, the position in which they had fallen. Several of the trunks had portions of their roots still attached, and some were evidently much decayed internally, and worm-eaten before their entombment. All the fossil-wood observed was silicified, probably by means of hot alkaline waters containing silica in solution, a natural result of volcanic action, especially when occurring in connection with water, as was evidently the case in the present instance.

"The trees, closely examined, appear to be all conifers, and in their external characters, especially in the bark, mode of branching, and general habit of growth, most nearly resemble the modern red-woods still flourishing in the same region."

Mount St. Helena, an extinct volcano, 4,343 feet high, is situated to the northwest of Calistoga, from which place an excellent trail leads to the summit, a distance of 10 miles. It is reasonably supposed that it was by the eruptions

from this mountain, many centuries ago, that the petrified forest just described, and which lies 10 miles south, was entombed. Mount St. Helena is considered by many as one of the most beautiful mountains in California.

Healdsburg, the point of departure for the Geysers, is a pretty village of about 1,000 inhabitants, in Russian River Valley, one of the best wheat-regions in the State. In summer it connects by stage with Petaluma (32 miles), from which the springs are reached in one day; but in winter, when the roads are heavy, and in some places almost impassable, travellers will find it necessary to remain overnight at Healdsburg, proceeding thence to the Geysers on horseback.

The Great Geyser Springs (99 miles) are situated in Sonoma County, in the midst of wild and picturesque scenery. The medicinal and curative properties of the waters are said to be fully equal to those of Saratoga, or of Baden-Baden and Aix-la-Chapelle in Europe. Leaving Healdsburg early in the morning, a few miles' travel on the road brings the traveller to *Ray's Ranch*, situated among the foot-hills, 617 feet above the sea-level, and commanding a fine view of Russian River Valley, the Coast Range, Mount St. Helena, etc. From this point the ascent is gradual for three miles, till we reach *Geyser* (Godwin's) *Peak*, which is 3,470 feet high. Here the view is charming. The whole valley of Russian River lies at our feet, extending from southeast and south, where it joins Petaluma Valley, round to the northwest. Beyond the valley extends the long line of the Coast Mountains. To the southeast rises Mount St. Helena. Directly south, at a distance of 60 or 70 miles, when the overhanging fog is not too dense, may be discerned the waters of the lovely bay and the blue waves of the Pacific. In fine, clear weather the view from this peak is among the finest to be had in all this lovely region. The sides of the peak to its summit are covered with a thick growth of tangled chaparral. Leaving the summit, the trail conducts the traveller along a narrow ridge called by the unpoetical name of the "Hog's back," which divides the waters of *Pluton River* and *Sulphur Creek*.

Sulphur Creek runs through the whole extent of the valley, and is well supplied with mountain-trout. The hills abound with deer and other game. On the north side is the wonderful *Geyser Cañon*, and all the celebrated geysers or medicinal springs. Among the natural products is an eye-water, also soda-water, sulphur, and acidulated springs, in both a cold and boiling state, which are used as efficacious remedies for cutaneous and rheumatic diseases.

The following is from Lieutenant Davidson's account of these "geysers," explored by him while employed in the United States Coast Survey. After giving the trigonometrical determinations of the peaks and mountains, he writes: "Descending from the hotel about 75 feet, we first meet the 'spring of iron, sulphur, and soda,' temperature 73° Fahr. The first spring, going up the Geyser gulch, is the 'tepid alum and iron incrustated,' temperature 97° S., and with a very heavy iridescent incrustation of iron, which forms in a single night. Twenty feet from this we pass the *Medicated Geyser Bath*, temperature 88° 8', and containing ammonia, Epsom salts, magnesia, sulphur, iron, etc. We collected crystals of Epsom salts two inches in length. Higher up, the *Spring of Boiling Alum and Sulphur* has a temperature of 156°; so, also, 'Black Sulphur,' quite near it. The *Epsom Salts Spring* has a temperature of 146°, and within six feet of it is a *spring of iron, sulphur, and salts*, at the boiling-point. Soon we come upon the *Boiling Black Sulphur Spring*, roaring and tearing continually. As we wander over rock, heated ground, and thick deposits of sulphur, salts, ammonia, tartaric acid, magnesia, etc., we try our thermometer in the geyser-stream, a combination of every kind of medicated water, and find it rises up to 102°.

"The '*Witches' Caldron*' is over seven feet in diameter, of unknown depth. The contents are thrown up about two or three feet high, in a state of great ebullition. It is semi-liquid, blacker than ink, and contrasts with the volumes of vapor arising from it; temperature 195° 5'. Opposite is a boiling alum-spring, very strongly impregnated; temperature 176°. Within 12 feet is an intermittent scald-

ing spring, from which issue streams and jets of boiling water. We have seen them ejected over 15 feet.

"But the glory of all is the '*Steamboat Geyser*,' resounding like a high-pressure seven-boiler boat blowing off steam, so heated as to be invisible until it is six feet from the mouth. Just above this the gulch divides; up the left or western one are many hot springs, but the '*Scalding Steam Iron Bath*' is the most important; temperature 183°. About 150 feet above all apparent action we find a smooth, tenacious, plastic, beautiful clay; temperature 167°. From this point you stand and overlook the ceaseless action, the roar, steam, groans, and bubbling, of a hundred boiling, medicated springs, while the steam ascends 100 feet above them all. Following the usually-travelled path, we pass over the '*Mountain of Fire*,' with its hundred orifices, thence through the '*Alkali Lake*;' then we pass caldrons of black, sulphurous, boiling water, some moving and spluttering with violent ebullition. One white sulphur spring we found quite clear and up to the boiling-point. At thousands of orifices you find hot, scalding steam escaping and forming beautiful deposits of arrowy sulphur crystals.

"Our next visit carried us up the Pluton, on the north bank, past the '*Ovens*,' hot with escaping steam, to the '*Eye-Water Boiling Spring*,' celebrated for its remedial effects upon all manner of inflamed and weak eyes. Quite close to it is a very concentrated alum-spring; temperature 73° 5'. Higher up is a sweetish '*Iron and Soda Spring*,' 15 feet by 8; and 12 feet above is the '*Cold Soda and Iron Springs*,' incrusting with iron, with a deposit of soda, strong tonic, and invigorating; temperature 56°. It is 12 feet by 5, and affords a large supply. The Pluton in the shade was 61°, with many fine pools for bathing, and above for trout-fishing."

The "*Indian Springs*," are nearly a mile down the cañon. The boiling water comes out clear as ice. This is the old medicated spring, where many a poor aborigine has been carried over the mountains to have the disease driven out of him by these powerful waters. One of the wonders of the place is that

grass, shrubs, and huge trees, should grow on its very edge, and even overhang in many places the seething caldrons below. The most varied wood abound—oak, pine, sycamore, willow, alder, laurel, and madrona.

Bayard Taylor, describing his visit to the geysers, says: "The scenery is finer than that of the Lower Alps." Of the '*Witches' Caldron*,' he writes: "A horrible mouth yawns in the black rock, belching forth tremendous volumes of sulphurous vapor. Approaching as near as we dare, and looking in, we see the black waters boiling in mad, pitiless fury, foaming around the sides of the prison."

It is quite a common thing for visitors to take eggs to the geysers and boil them in the springs. After inspecting the springs, it is worth the visitor's while to climb the mountains on the north side of the Pluton, and take a view of *Clear Lake* and the surrounding landscape. (See ROUTE III. of CALIFORNIA.) But, perhaps, as a late writer has remarked, the scene which would delight a lover of Nature most can be obtained by rising early and walking back half a mile upon the trail which descends to the hotel: "It is to see the gorgeous tints of the eastern sky, as the sun comes climbing up behind the distant mountains, and afterward to watch his long, slanting rays in the illuminated mist, as they come streaming down the cañon of the Pluton, flashing on the water in dots and splashes of dazzling light, and tipping the rich shadows of the closely-woven foliage with a fringe of gold."

Skagg's Springs.—From Healdsburg, stages run every day to *Skagg's Springs*. They are more easily reached than the Geysers, and are much frequented by invalids. The stage-route from Healdsburg is through Windsor (6 miles), to Santa Rosa (16 miles). Railway cars go to Petaluma (32 miles). (See ROUTE III. of CALIFORNIA.)

ROUTE III.

SAN FRANCISCO TO SKAGG'S SPRINGS
AND THE GREAT GEYSERS.

By Steamer, via Northern Pacific Railway
and by Stage.

DISTANCES.—San Francisco to Donahue, 40 miles; Petaluma, 46; Santa

Rosa, 62½; Mark West, 70½; Windsor, 72; Healdsburg, 80; Geysers, 100; Skagg's Springs, 94.

The steamer Sacramento leaves Jackson Street wharf, San Francisco, at 8.30 A. M., arriving at Donahue at 11.20 A. M., to connect with trains of the old *North-eastern Pacific Railway*. After a pleasant two hours and a half sail up the bay of San Francisco into St. Pablo Bay, the boat enters the estuary of Petaluma Creek, and arrives at Donahue.

Donahue is the southern terminus of the Northern Pacific Railway, projected to run from Saucelito to Humboldt Bay, *via* Petaluma, Santa Rosa, Healdsburg, and Cloverdale. The San Francisco & Humboldt Bay Railway Company, organized in 1868, originally had charge of the enterprise. Little was done by this organization, and in 1869 a new company, called the San Francisco & North Pacific Railway Company, was formed, to which the San Francisco & Humboldt Bay Railway Company transferred all its franchises, rights of way, etc. Nothing was accomplished, however, by the new organization, until August, 1870, when Peter Donahue bought the stock of the company, and prosecuted the work of the road with so much vigor that, on the last day in 1870, he had cars running from the new town of Donahue to Santa Rosa, a distance of 22½ miles. The road, in May, 1871, was completed to Mark West, 8 miles north of Santa Rosa, and later in the year was finished to Healdsburg. Mr. Donahue subsequently sold the road for \$750,000 to the California Pacific Railway Company. Stages from Donahue connect with Sonoma, fare \$1.50.

Petaluma (46 miles), the principal city of Sonoma County, in 1870 had a population of 2,868 inhabitants, and at present has over 5,000. It is 48 miles northwest of San Francisco, and is situated on Petaluma Creek, at the head of navigation. There are many large warehouses in the place, one of brick, 150 feet square and 27 feet high, in which immense quantities of grain are stored. The Petaluma Theatre, 60 by 100 feet, is a handsome and well-appointed house. The *American Hotel*, a fine building, is well kept. Stages leave for Bloomfield

daily, at 12.30 P. M.; for Bodega and Duncan's Mills, tri-weekly. Distance to Bloomfield, 15 miles; fare, \$1.50; Bodega, 25 miles; fare, \$2.50; Duncan's Mills, 40 miles; fare, \$4.00. Leave Duncan's Mills Wednesday and Sunday mornings for Point Arenas. Stages for Two Rock and Tomales start every day (Sundays excepted) at 12.30 P. M. Fare to Two Rock, \$1.00; to Tomales, 16 miles, \$1.50. Stages for San Rafael, 21 miles distant, depart Mondays, Wednesdays, and Fridays, at 7 A. M.; fare, \$2.00. Stages leave for Nicasio, Wednesdays and Fridays, at 2 P. M.; distance, 16 miles; fare, \$1.50. For Whitman's Store, Tuesdays, Thursdays, and Saturdays; distance, 18 miles; fare, \$1.50.

A portion of the *Humboldt & Saucelito Railway* has been built, and is in operation from the head of navigation near Petaluma to Santa Rosa, 16 miles. It is eventually to be extended southerly to Saucelito, on the bay, directly opposite San Francisco, and northwardly to Humboldt Bay.

Santa Rosa, the capital of Sonoma County, in 1870 had a population of 2,901 inhabitants. It is situated on Santa Rosa Creek, a tributary to Russian River. The Methodist college has recently been transferred from Vacaville to this place. Kessing Hotel, board \$2.00 per day, is said to be a good house. From the cupola of the building there is a splendid view of the Santa Rosa Valley, with St. Helena looming up to the northeast, and Geyser Peak to the northwest. Stages run regularly to the following points: Mark West, 6 miles north; Windsor, 10; Healdsburg, 16; Sonoma, 16; Napa, 28; Sebastopol, 7; Feuston, 14; Bodega Corners, 17; Bodega Bay, 20; Duncan's Mill, at the mouth of Russian River, 25; Fort Ross, 37; Timber Cove, 40; Salt Point, 32; Fisk's Mill, 50; Fisherman's Bay, 44; and to the mouth of the Walhalla, 56.

Healdsburg (80 miles). (See page 271.)

The routes from this place to Skagg's Springs and to the geysers have been described in ROUTE II. of CALIFORNIA.

The road is completed 12 miles beyond Healdsburg to Cloverdale.

ROUTE IV.

SAN FRANCISCO TO THE CLEAR LAKE REGION (HUNTING-GROUNDS).

Via Steamer, Napa Valley Railway, and Stage.

DISTANCES.—San Francisco to Calistoga, 71 miles (connects with Napa Valley Railway): Liley's Mill, 80; Bradford's, 83; Loconomo Valley, 89; Coyote Valley, 92; Lower Lake, 106; Clear Lake, 112; Kelseyville, 122; Lakeport, 131.

The route from San Francisco to Calistoga has been described in ROUTE II. of CALIFORNIA. (See page 268.)

The picturesque region of Clear Lake is the most extensive, and most frequented hunting-ground in this part of California. It abounds in deer, bears, panthers, hare, squirrels, foxes, grouse, quail, pigeons, geese, and ducks, and its waters teem with many kinds of delicious fish.

Stages leave Calistoga at 8 o'clock A. M. for Lower Lake and Lakeport. Fare to Lakeport, \$5.00. This is a charming drive. Coming out of Napa Valley at Calistoga, we ascend Mount St. Helena (see page 270) by an easy grade. Early in the morning the reflection of the sun upon the mountains is very beautiful. At the *Toll-House* (8 miles) we begin the descent into Loconomo Valley. *Middleton* (20 miles), an infant city, is a station for changing horses. Three miles to the northwest of this place is *Harbin's Springs*. *Guenoc* (24 miles) lies in Coyote Valley, a fertile tract, containing about 10,000 acres. Passing over *Clear Lake Mountain*, where quail are very plentiful, we come to Cache Creek Valley. *Cache Creek* is the outlet of Clear Lake.

Lower Lake (106 miles). The town of Lower Lake, 36 miles from Calistoga, is the centre of a rich hunting-locality, where duck, geese, quail, and deer abound in season. Trout and perch may be taken from the middle of April to the middle of June. Wild-pigeons fly about in dense flocks in easy gun-range. The *Virginia House* is said to be a good hotel. Its proprietor, Mr. R. H. Lawrence, is an old sportsman, and will give the tourist any information he may require concerning hunting in the Clear Lake region.

Clear Lake may be seen to advantage from the road between Lower Lake and the Sulphur Bank.

Bartlett Springs lie 25 miles north of Lower Lake. The Redington and Manhattan Quicksilver Mines, which are highly productive, lie 18 miles south.

Seigler Springs is a favorite resort for invalids. It is six miles west of Lower Lake. There is a good hotel at the place.

Clear Lake (112 miles) is about 25 miles long, and from two to six miles wide, and averages about 35 feet in depth. It contains several small islands, among which are Coyempo and Alempo. The former was once the site of an Indian village; Salvador, the chief of the Lake Indians, resides in the latter place. The waters of the lake are supplied chiefly from springs below its surface, which are of various temperatures. Some of them are of pure water, and others are strongly chalybeate. Hot and mineral springs are found throughout the Clear Lake region.

From Lower Lake to *Manning Lake* is five miles.

Kelseyville (122 miles), a village on Kelsey Creek, owes its name to Andrew Kelsey, an early settler, who was murdered by the Indians in 1852. A detachment of United States troops subsequently avenged his death by defeating the savages in a great battle upon Alempo Island. There is a gas-hill at Kelseyville. It is only necessary to make an incision in the earth and to apply a match in order to obtain a jet of gas that will burn for nearly five minutes. Some time ago a hole was dug seven feet, and a pipe put in it, from which the gas burned for several weeks, and was then extinguished.

Mount Uncle Sam, or, as it is called by the Indians, Co-noke-ti, a remarkable mountain 15 miles from Lakeport, is about 2,500 feet high. On the side fronting the lake it is nearly perpendicular. *Soda Bay*, which is at its base, contains innumerable soda-springs, which bubble up from the lake and from the shore.

Lakeport (131 miles), the capital of Lake County, is a promising town, near the shore of the lake in Big Valley.

There are capital hunting, boating, and fishing, at this place. At the *Lakeport Hotel* the charges for board are \$2.00 per day, or \$7.00 a week. Boats, 50 cents to \$1.00 per day, or, with a boatman, \$2.00 to \$5.00 per day. Stages run from Lakeport to Cloverdale, Ukiah, and Upper Lake. At Cloverdale they connect with railway described in ROUTE III.

ROUTE V.

SAN FRANCISCO TO SAN RAFAEL AND MOUNT TAMALPAIS.

By Steamer "*Contra Costa*," *San Rafael & San Quentin Railway*, and on Horseback.

DISTANCES.—San Quentin, 12 miles; San Rafael, 14; Ross's Landing, 16½; Summit of Tamalpais, 26.

The steamer *Contra Costa* leaves the ferry-dock, Davis Street, near Vallejo Street, daily, except on Sunday, for Point San Quentin, which projects into the bay about 12 miles north of San Francisco. As the ascent of the mountain cannot be made conveniently on the same day, the tourist can take his choice of the hours of starting. The steamer connects on each trip with *San Rafael & San Quentin Railway* for San Rafael.

San Quentin (12 miles). (See page 267.)

San Rafael (14 miles). (See page 267.) Good saddle-horses may be had at this place. The distance from San Rafael to the summit of Mount Tamalpais is about 12 miles. The ascent may be made in about three hours. We follow the stage-road for 2½ miles to Ross's Landing, from which point no particular direction can be given on paper. The ascent is steep and tedious, but is not dangerous.

Mount Tamalpais is 2,597 feet high. Its summits, of which there are three, consist of metamorphic sandstone, in some places marked by quartzveins having a banded structure. Heavy masses of serpentine occur on its western and northern slope. A ridge of this material, nearly 2,000 feet high, extends several miles to the northwest. On a clear day the view from the top of the mountain is magnificent.

The tourist may vary the trip by returning by stage to Saucelito, and thence

by ferry to San Francisco. The round trip may be made in about 30 hours.

ROUTE VI.

SAN FRANCISCO TO MOUNT DIABLO.

Via *San Francisco & Oregon Railway*, by *Beaudry's and Johnson's Stages*, and on Horseback.

DISTANCES.—Broadway Station, 8 miles; Lafayette, 22; Walnut Creek, 25; Pacheco, 31; Clayton, 39; Mount Diablo Summit, 47.

The Oakland ferry-boat leaves Pacific Street wharf daily, connecting at *Oakland* landing with the cars of the *San Francisco & Oregon Railway*, for Broadway Station (8 miles). The tourist can leave San Francisco by early ferry-boat, enabling him, if he desires, to spend several hours in Oakland. L. M. Beaudry's stages leave Broadway Station for Pacheco (23 miles), passing through Lafayette (14 miles), and Walnut Creek (17 miles). S. W. Johnson's stages, running from Martinez to Somerville, pass through Pacheco for Clayton (8 miles).

Pacheco (31 miles), a town of about 500 population, in Contra Costa County, is the shipping-port of the agricultural region of the Diablo and San Ramon Valleys.

Clayton (39 miles) is a pleasant little village. At this place we leave the stage, and, accompanied by a guide (for the trail in some places is steep and dangerous), start on horseback for the mountains. The ascent may be made in a little more than two hours. There is a good carriage-road following the course of a stream through a deep cañon, for four miles south from Clayton. At the end of this road, at a farm-house, we turn to the right and follow the cut trail in a westerly course to *Deer Flat*, where are two huts and a spring of water.

Mount Diablo.—After crossing the flat, the trail extends in a southeasterly direction to the top of a ridge which is in sight from Deer Flat; then turns to the east and lies along the top of the ridge 2½ miles to the summit, which is 3,876 feet above the level of the sea. The view is superior to any in the State, and many travellers consider it equal to

any in the world. It includes all the country and towns around San Francisco, San Pablo, and Suisun Bays, and the valleys of San Joaquin and Sacramento, and the mountain-peaks of the Coast Range and Sierra Nevada. The tourist should have a good field-glass with him.

Returning to Clayton, it would be well to take a horse and buggy and visit the coal-mines at Nortonville, six miles distant. The road is good, and leads through a rough and mountainous region.

Stages leave Clayton for Martinez (13 miles), connecting at Martinez with ferry-boat which conveys the tourist across the Straits of Carquinez (two miles) to Benicia, a flourishing town. (See page 268.) At Benicia direct communication is made with steamer for San Francisco (36 miles). The round trip may be made in 48 hours.

ROUTE VII.

SAN FRANCISCO TO WARM SPRINGS, ALAMEDA COUNTY.

Via San Francisco & Alameda Railway, and Ferry, and by Liston's Stages.

STATIONS.—*San Francisco & Alameda Railway:* San Francisco to Alameda Point, $6\frac{1}{2}$ miles; Woodstock, $7\frac{1}{4}$; Masticks, 9; Encinal, 11; Alameda, 12; Fruit Vale, $12\frac{1}{2}$; High Street, 13; Dawson's, $13\frac{1}{2}$; Fitch's, $14\frac{1}{2}$; Jones's, 16; San Leandro, 18; Junction, $19\frac{1}{2}$; Ashland, $20\frac{1}{2}$; Castro Valley, $21\frac{1}{2}$; Hayward's, $22\frac{1}{2}$. (Stages connect for Mount Eden, Alvarado, Centreville, Mission San José, Saratago House and Warm Springs. Also for Dublin, Pleasanton, Laddsville, and Summit.)

STATIONS.—*Liston's Stage Line:* San Francisco to Mount Eden, $25\frac{1}{2}$ miles; Alvarado, $28\frac{1}{2}$; Centreville, $32\frac{1}{4}$; Washington Corners, 26; Mission San José, 38; Warm Springs (connects with Seely's line of stages for Milpitas and San José), 41.

The ferry-boat Alameda leaves the wharf on Davis Street, between Pacific and Broad Streets, for Alameda Landing, connecting on the wharf with the *San Francisco & Alameda Railway* trains for Hayward's ($22\frac{1}{2}$ miles). The route lies through the beautiful grove of oaks in

the midst of which stands the pleasant village of Alameda.

Alameda (12 miles). (See page 120.)

From Alameda the route to Hayward's lies through the most fertile and best cultivated land around San Francisco Bay.

Hayward's ($22\frac{1}{2}$ miles) is the most beautifully situated village in Alameda County, lying among the foot-hills of the Contra Costa Range, in the midst of charming scenery. It is the depot for the grain from Amador, Livermore, and Castro Valleys, and has the chief cattle-market in the State. The village suffered severely by the earthquake of October, 1868, which completely destroyed a brick warehouse 400 by 60 feet, one of the largest in California. The tourist should spend a few hours in the place.

Daily stages leave Hayward's (19 miles) for the Warm Springs, *via* Mount Eden (3 miles), Alvarado (6 miles), Centreville (10 miles), Washington Corners (14 miles), Mission San José (16 miles.)

The Warm Springs (41 miles) are medicinal, containing sulphur, lime, magnesia, and iron, in various proportions. They are in a retired situation in a little valley among the foot-hills of the Coast Range. The surrounding scenery is very attractive. Stages leave the Springs for San Francisco every day. Seely's line of stages for Milpitas and San José also starts from this place.

Mission San José is a very old town, in the southern part of Alameda County, near the Warm Springs (with which it connects by stage). The old Mission Church, built of adobe, was used for services until October, 1868, when it was destroyed by an earthquake.

ROUTE VIII.

TO SAN JOSÉ, THE SANTA CLARA VALLEY, THE ALMADEN QUICKSILVER-MINES, GILROY, AND LOS ANGELES.

Via San Francisco & San José and Southern Pacific of California Railways, and by Stage.

DISTANCES TO GILROY.—From San Francisco to Bernal, 4 miles; San Miguel, 6; San Bruno, $14\frac{1}{2}$; Milbrae, $16\frac{3}{4}$; San Mateo (connects with stages for Crystal

Springs, Half Moon Bay, Purisima, San Gregorio, and Pescadero), 20½; Belmont, 25; Redwood City (connects with stages for Searville and Woodside), 28½; Menlo Park, 32; Mayfield, 34½; Mountain View, 38½; Santa Clara (connects with stage for Congress Springs and Santa Cruz), 46½; San José, 50; Gilroy (connects with daily stages for San Juan, Watsonville, Salinas, Hilltown, Hot Springs, New Idria Mines, Paso Robles, Monterey, San Luis Obispo, Santa Barbara, San Buenaventura, and Los Angeles; and, tri-weekly, for San Luis Ranch, Lone Pine, Kingston, Visalia, Havilah, Kernville, White River and Sage Land), 80.

DISTANCES TO LOS ANGELES.—From San Francisco to Gilroy, 80 miles: San Juan (connects with stages for Watsonville and Santa Cruz, New Idria, Castroville, Salinas City, and Monterey), 92; Natividad, 104; Salinas River, 132; Last Chance, 156; Plato Ranch, 187; Paso Robles Hot Springs, 216; San Luis Obispo (connects with stage for San Simeon), 244; San Marcus, 323; Santa Barbara, 345; San Buenaventura, 373; Mountain Station, 413; Los Angeles (connects with stages for San Diego, Fort Yuma and Tucson, San Bernardino, La Paz, and Clear Creek), 446.

A day or two may be profitably spent in visiting San José and the Santa Clara Valley. Market-Street horse-cars, carrying a blue signal, connect with the trains on the *San José Railway* which leave the depot at the corner of Market and Valencia Streets every morning for San Miguel and San José. We travel in a southeasterly direction from San Francisco, catching a glimpse or two of the Pacific on one side, and later of the southern arm of San Francisco Bay on the other. A long range of treeless mountains, of picturesque outline, bounds a portion of the horizon. For a short trip of 50 miles, this is one of the most charming in California.

Redwood City (28 miles), the capital of San Mateo County, is situated on Redwood Creek, 28 miles south from San Francisco.

Santa Clara (46½ miles) is a beautiful little town, in 1870 having a population of 3,470 inhabitants. It contains several fine churches and schools,

among which is the "University of the Pacific" (Methodist), and the Santa Clara College (Jesuit), in which is included the Old Mission, founded by the Spanish missionaries in early times. This latter institution has a high reputation as an educational establishment. In Santa Clara some very old adobe buildings are standing, and a number of one-story clay huts near are used for the homes of a miserable but contented-looking group of families, descendants of the lower order of Mexicans and the California Indians. In the orchards attached to the mission are pear-trees, gnarled and mossy, but still in life, though planted by the earliest of the Spanish missionaries.

The village is connected with San José, the next station, by a horse-railroad. The distance is five or six miles, and the road is delightful. It is called the *Alameda*, and is bordered by fine residences and a superb avenue of trees, planted by the Jesuit fathers in 1777. These trees are mostly deciduous and without leaf. The first artesian wells in the State were sunk in Santa Clara. Congress Springs and Santa Cruz are reached from here by stage.

San José (50 miles) is a busy town in the heart of the Santa Clara Valley, in 1870 having 9,091 inhabitants. It is rapidly growing, and is a place of frequent resort for San Franciscans, who generally make their excursions here on Saturdays and Sundays. The town is eight miles south of the head of San Francisco Bay. It contains one of the best-appointed hotels on the coast, and its *Court House*, which cost \$200,000, is considered the handsomest structure of the kind in the State. The view from the dome of this latter building is very fine. There are many productive vineyards and orchards in the town. In consequence of its healthful climate, which is a mean between the harsh winds of the coast and the hot valleys of the interior, San José and its neighborhood are much visited by those having pulmonary complaints. To the stranger, the streets present much interest from the strongly-contrasted groups which pass through them. "Here," says a correspondent of the *Springfield Republican*, "we see an American with his fine broad-

cloth and silk hat, his light wagon and well-groomed trotter; there two or three rancheros with their slouched hats, loose and shabby garments, on rough-coated horses, stained with the mud of a former day; here a Mexican on a compactly-limbed mustang, with the high peak and broad stirrups of the Mexican saddle (which is the only one in use here), with his big, broad-brimmed hat, his loose but jaunty jacket, with all the seams of his clothing trimmed with rows of small steel or silver buttons, and heavy spurs. Chinese and negroes abound among the passers-by on foot. There is a street in San José occupied entirely by the French. The houses are unpretending, but very cheerful and pretty, with small grounds a good deal decorated, abundance of flowers, and always a cluster of artichoke-plants in the garden. There is another quarter occupied entirely by the Chinese; one-story brick buildings, crowded and poor, but quaint with Chinese pottery, and brightened by what are called Chinese lilies, bulbs grown in dishes filled with pebbles and water. They are the narcissus of the spring borders in New England, and every Chinaman tries to have one blossom for his New Year's."

An old adobe church in the town, built by the early Spanish missionaries, has been enclosed in brick to preserve it. There are some fine oil-paintings to be seen at this place, among them being a superb copy of Murillo's "Repentant Peter," and one of Raphael's "Madonna del Seggiola." An excellent school kept by the Sisters of the Order of Notre-Dame is located here. It is worth visiting.

The Santa Clara Valley is nearly 100 miles in length. It is irrigated by artesian wells, and considered by many to be the most fertile in the world. In the spring of 1871 there were 300 acres devoted to strawberries, the product being from 4,000 to 6,000 pounds to the acre. Between 60,000 and 70,000 pounds of the fruit were consumed daily in San Francisco. Vineyards covering hundreds of acres, vast wheat-fields, several of which are one and two miles in length, stately trees, and forests of live-oak, are to be seen on every hand. The visitor will be surprised at the almost innumerable number of squirrels and go-

phers in this and in all other valleys of California. Indeed, so numerous are they, that the State has recently enacted a law offering a bounty for their scalps. Some idea of the fertility and beauty of the Santa Clara Valley may be formed by the following correspondence to the *Springfield Republican*.

"I wish I could paint this beautiful valley as I saw it; its centre filled with the towns of San José and Santa Clara, its horizon bounded by mountains whose hollows were pink and brown in the morning sun, and purple and blue in the sunset light. Some of them wooded, some bare, the foot hilly, with nooks suggesting lovely spots for country homes.

"I visited an estate of several hundred acres, owned, laid out, and managed by General Naglee. The residence upon it is a simple, picturesque cottage, covered with vines, and at a moderate distance are the stables, and, beyond, the works for making wine and brandy, with the low, brick storerooms near, where the liquors are stored for ripening, and a well-arranged laundry in charge of a Chinaman. The enormous vats and boilers of the works and the complete order of the establishment (in charge of a Frenchman who did not speak English) gave indication of the large amount of liquors made. All the laborers on the place were Chinese. The vineyard was of such extent that we rode through it. Between it and the grounds about the house was a hedge of the fragrant Chinese honeysuckle, here an evergreen. The hedge was between four and five feet high and a quarter of a mile long; and I strongly desired to see it by moonlight when in blossom, for it must then spread its perfume over many acres. The grounds were filled with many varieties of evergreen and curious trees of semi-tropical countries. Half a dozen summer-houses of tasteful designs and liberal proportions, covered with graceful and novel climbing plants, decorated a landscape garden, to which several ponds and ornamental fountains gave life. We found there bank after bank of fragrant violets, blue with a profusion of flowers.

"I also visited a large fruit farm,

where I saw fifty acres planted with peach, plum, and pear trees, and acre after acre of strawberry-plants. These yield from late April to Christmas-time, but the market season is during May and June. Artesian wells were spouting in every direction, and all the places I saw in the valley were irrigated by them. I saw on this farm both hard and soft shelled almond-trees in bloom. The grounds are tilled entirely by the Chinese. In one of the large nurseries in the neighborhood I saw the California bay-tree, and its leaf is like that of the classic wreath of bays. On the banks of the Coyote, a streamlet, as I thought, I saw superb specimens of the live and black oak trees. The afternoon sun shining through their large branches and pale-green leaves, with the pendant Spanish moss, made an enchanting picture. These streamlets in the neighborhood, the Guadalupe and Coyote, narrow threads of water flowing over broad, pebbled beds, are sometimes formidable water-courses. The roads were level and dry, bounded often by ditches filled with the overflow of the wells, and lined with water-cresses of great size. I am told that the luxuriance of vegetation keeps the pruning-knife in constant use."

The Almaden Quicksilver-Mines are about 14 miles from San José, and 65 miles south from San Francisco. A pleasant two-hours' ride in one of the easy coaches which are in waiting will bring us to this interesting locality. The road is good, and the way for the most part lies through a beautiful grove of sycamores and live-oaks, the latter draped with the graceful Spanish moss. We see also fine specimens of the fragrant bay-tree, the dark-green buckeye, and the pretty California laurel. The *Vichy House*, kept by a Breton, is a cool place to rest before ascending the mountain to the mines. Beside the hotel is a delicious, cool mineral spring, whose waters are said to bear a strong resemblance to the celebrated springs at Vichy, in the south of France.

The carriage-road up the mountain is broad and even. On the left is the rising mountain-side, and on the right is a deep ravine. The trail is not considered dangerous, owing to the breadth of the road ;

but much care has to be exercised by the driver to avoid the steep precipices which we sometimes come upon quite suddenly. Teams of from four to eight mules are passed ascending and descending, with bells hanging from their necks to warn the drivers of other vehicles of their approach. The higher we rise, the more beautiful is the scene below us, and, on reaching the summit, which is 940 feet from the base, the prospect is grand. A tourist, describing his ascent, says : "As we rose higher and higher, and looked down into the gorges on our right, and at the mountains of the spur of the Coast Range (in which the mines are situated), we saw view after view whose wildness of beauty is very difficult to describe. Mountain-peaks rose behind and beside each other, and their feet overlapped each other, dipping themselves down into hollows, all green from the peaks to the depth of each cañon or ravine. These green hill-sides were seamed by narrow lines, the tracks made by the sheep and goats, which love to feed upon the sweet grass and wild-oats. Before we reached the level of the upper mine we were high enough to command an outlook over the whole broad Santa Clara Valley, and the white buildings and fine dome of the court-house at San José, and to see the waters of Alviso Bay, 17 miles north of us, sparkle in the sunshine, and feel the fresh mountain-breezes brace and exhilarate us. The mountain-road was bordered by flowers of crimson and glowing blue, the Mexican sage, the wild gooseberry and currant, the scrub-oak, and gorgeous-looking leaf of the poison-oak, a little shrub dangerous to touch, and a profusion of unknown foliage, with a richness of coloring and luxuriance of growth that were very pleasing. At length we passed a large settlement of cabins and huts of various sizes and degrees of comfort, settled upon the broken surface of the mountain, in a very irregular and picturesque manner. These were the homes of the miners and their families, and, with those engaged at the reduction-works at the foot of the mountain, number about 1,500 inhabitants. A store is near the entrance to the upper mine, and a large shed under which the workmen were sorting over the heaps of ore brought

there in cars from the mouth of the tunnel. The stock of the store has to be brought up by carts and pack-horses."

The ore from which quicksilver is procured is called cinnabar, and was long ago known to the Indians, who worked it for the vermilion powder with which they painted their persons, and was valued as highly as money by the tribes as far from the coast as Colorado. Some Mexican officer bribed the natives to discover for him the whereabouts of the mines, and in 1846 a Mexican company was formed for working it. They named it after the most valuable mines of mercury in the world, the Almaden Mines, in the province of La Mancha, Spain. The tunnel from the mouth to the engine-room beside the shaft is one-fourth of a mile in length; the ore is brought up from the shaft (which runs hundreds of feet straight down into the earth, and from which open many galleries where the miners work) in iron-bound buckets, which are drawn up and emptied into a car standing on the track in the tunnel. The men descend to their work and come back again to the tunnel by means of the bucket. The tunnel is very dark, and its walls drip with damp. Among the miners are many Mexicans, who have considerable skill and experience in this kind of work, although there are also English, Welsh, Scotch, and Irish, among them.

The process of extracting the mercury from the ore is very simple. Chambers are filled with the cinnabar laid in layers with channels of adobe brick between; intense fires are kept up in the furnaces, which are arranged so as to enable the heat to escape into the ore-chambers through perforated brick walls. The heat decomposes the ore, and the mercury escapes in the form of vapor into the condensing chambers connected by another perforated wall, on the other side. As the vapor cools, it condenses on the walls of the chambers, trickling down their sides into channels, then through pipes and troughs into a caldron, from which it is dipped up in iron ladles and put into the solid iron flasks imported from Europe for this purpose. The fluid is of such great weight that the flasks made to contain 75 pounds

each really do not look as if they would hold more than two quarts. The enormous amount of quicksilver needed for gold and silver mining makes this Almaden mine, and the others in the same part of the country, the *Enriquita*, the *Providence*, and *Guadalupe*, of immense value to California.

We will now return to San José and continue our road to Los Angeles. After a ride of nearly two hours through a rich and picturesque country, we arrive at

Gilroy (80 miles), till lately terminus of the *Southern Pacific Railway*. This town is situated near the southern border of Santa Clara County. The *Gilroy Hot Springs*, a few miles to the northeast, are much frequented.

Travelling through a fine grazing region, we pass the

Paso Robles Hot Springs (216 miles), which are said to possess valuable medicinal properties, and come to

San Luis Obispo (244 miles), a small, unimportant Spanish town, the capital of the county of the same name. This place connects with San Simeon by stage.

Santa Barbara (345 miles) is situated on a narrow plain between the sea and the base of a range of coast-mountains 3,000 feet high. The climate is mild and salubrious, and tropical and temperate fruits flourish with equal luxuriance. Santa Barbara, with the other ports along the coast, is famous for the hide business, formerly the staple product of California. It has no protected harbor, like San Pedro and other places along the coast, but is only an open roadstead, dangerous to vessels during a southeaster, which, however, occurs only during the rainy season. Like Monterey and the other old places in California, it retains much of its quaint Spanish look—the adobe buildings, roofed with tiles, presenting an aged appearance.

The "*Old Mission*" is about a mile distant. Three miles east is a famous grape-vine, supposed to be the largest in the world. The stem is over a foot in diameter. The vine is supported by a trellis 76 feet long and 61 feet wide, which it completely covers. It was planted from a cutting nearly half a century ago. In 1867 it bore six tons of grapes, some of the clusters weighing five pounds

each. The main building of the Mission is 200 feet long, and 40 feet wide, supporting two domes in front, and with bell-fries of solid masonry. To the left of this is a wing 130 feet long, with porches supported on pillars and arches. In the vicinity are a reservoir and orchard, and the Mission garden, in which grow nearly all kinds of tropical fruits. The view of the Mission, as one approaches from the village, is remarkably picturesque. Santa Barbara connects by steamer with San Francisco. (*See* page 121.)

Los Angeles (446 miles), the oldest and largest city in Southern California, is situated in a narrow valley, on the *Los Angeles River*, about 22 miles from the sea. On the northwestern side of the town, and very near the busiest part of it, is a hill about 60 feet high, whence an excellent view of the whole place may be obtained. Along the banks of the river for miles are situated the vineyards and orange-groves, the pride of Los Angeles. The population in 1870 was 5,614, a great proportion of which are foreigners. Many of the houses are of the Spanish style—one story—with flat roofs covered with asphaltum, which abounds in the neighborhood. The city is growing rapidly in population and wealth. The surrounding country is rich with vineyards, orange-groves, lemons, olives, and other tropical fruits. To the east of Los Angeles *Mount San Bernardino* rises, covered with snow, 80 miles distant. Its altitude is about 8,000 feet, and it marks the site of the pleasant valley in which the town of San Bernardino is situated. Silver lodes of more or less promise have been discovered in various parts of the neighboring mountains. There is a rich tin-mine at Temescal, about 60 miles distant, on the Overland Route. The San Gabriel placer gold-mines lie about 20 miles to the northeast. Los Angeles connects with San Francisco by steamer and railroad *via* San Pedro.

ROUTE IX.

LOS ANGELES TO SAN DIEGO.

By Stage.

DISTANCES.—From Los Angeles to San Gabriel River, 10 miles; Rancho Los

Coyotes, 17; Anaheim, 27; San Juan Capistrano, 60; Santa Margarita, 87; San Luis Rey, 90; San Diego (connects with stage for Fort Yuma, Pima Villages, and Tuccon), 131.

The journey from Los Angeles to San Diego is a pleasant one, along the coast. It can be made in two days. Stages to and from San Diego remain overnight at San Juan Capistrano.

Los Angeles. (*See* page 281.)

San Diego (131 miles from Los Angeles, and about 500 miles southeast of San Francisco) is situated upon a good harbor of the same name, which, next to that of San Francisco, is the best on the coast of California, being well protected, capacious, and having a good depth of water. The town is more than 100 years old, having been founded by the Roman Catholic missionaries in 1769. Its growth during the past three or four years has been rapid, and it has lately been made a port of entry. The population in 1870 was 2,300. The climate is mild and pleasant, varying but about 12° from the usual mean of 68° Fahrenheit.

ROUTE X.

LOS ANGELES TO SAN BERNARDINO.

By Stage.

DISTANCES.—Los Angeles to El Monte, 14 miles; Rusbottom's, 30; San Bernardino (connects with stage for San Diego), 65.

This is an agreeable excursion along the route to Arizona.

Los Angeles. (*See* page 281.)

At *Rusbottom's* the stage stops for meals.

San Bernardino (65 miles) is an old Mormon settlement, in 1870 having a population of 3,060. It is situated in the beautiful valley of San Bernardino, which is walled in by bold and precipitous mountains formed of soft, white granite, which gives them the appearance of white sand. Fruit of all kinds grows here in abundance, particularly the orange and the lemon. Large quantities of cedar and other valuable timber are found in the forests near the town, but little has been done in road-building to make this timber accessible.

ROUTE XI.

SAN FRANCISCO TO CONGRESS SPRINGS, SANTA CRUZ, MONTEREY, AND PESCADERO.

Via San Francisco & San José Railway, and by Santa Clara & Santa Cruz, and Pescadero & Santa Cruz Stage Lines.

STATIONS.—*San Francisco & San José Railway*: Bernal, 4 miles; San Miguel, 6; San Bruno, 14½; Milbrac, 16½; San Mateo (connects with stage for Pescadero), 20½; Redwood, 28½; Mountain View, 38½; Santa Clara, 46½.

STATIONS.—*Santa Clara & Santa Cruz Stage Line*: Lexington, 12 miles; Forest House, 13; Summit, 15½; Mount Charley's, 16; Santa Cruz (connects with stages for Soquel and Watsonville, and Pescadero), 30. From San Francisco, 76½.

STATIONS.—*Pescadero & Santa Cruz Express*: Williams's Landing, 10½ miles; Scott's Creek, 16; Frogtown, 20; Waddell's Wharf, 23; White House Ranch, 26; Pigeon Point, 30; Pescadero, 38 (connects with daily stage for San Mateo), 31.

This road, as far as Santa Clara, has been fully described in ROUTE VIII. of CALIFORNIA. (*See page 276.*)

Stages run from the depot at Santa Clara twice a day to *Congress Springs*, at Saratoga, about 11 miles—a favorite place of resort, and one of easy access. Passengers wishing to go through from San Francisco to Santa Cruz on the same day, should take the stage immediately on arriving at the depot in Santa Clara. The route is one abounding in beautiful mountain scenery.

Santa Cruz (76½ miles) is pleasantly situated on a cove on the north side of *Monterey Bay*, opposite the city of Monterey. Manufacturing is extensively carried on at this place, lime and leather being the chief productions. Bathing, hunting, and fishing, are among the attractions of Santa Cruz. The scenery in the neighborhood is romantic and beautiful in the extreme. The tourist should not leave without visiting some of the most attractive points in the vicinity. Among these are the following:

	MILES.
Bath Houses.....	1
Seal Rock.....	1
Moore's Beach.....	2½
Natural Bridge.....	4
Eagle Glen.....	7
Oil Works.....	9
Pebble Beach.....	10
Paper Mill.....	2
Powder Mill.....	2½
Adam's Lime Kiln.....	3
Cave.....	3
Soquel (stage).....	4
Paradise.....	4
Scott's Valley.....	7
Felton.....	7
Big Trees.....	8
Castro Beach.....	8
Watsonville (stage).....	20

Stages leave Santa Cruz for *Pescadero* (34½ miles) three times a week. The road runs for several miles on the ocean-beach.

The tourist may return to San Francisco by several different routes. He can take the stage for San Mateo (31 miles), *via* San Gregorio (6 miles), Purissima (14 miles), Spanishtown (18 miles), Summit (23 miles), and Crystal Springs (27 miles), arriving in time for the train to San Francisco. Another route is by stage to San Juan, *via* Watsonville, or steamer (three times per month), to Monterey, and stage *via* Castroville and Salinas City to San Juan, thence stage to Gilroy Railway, to San José, stage to Warm Springs, Alameda County, stage to Hayward's and railway and ferry to San Francisco, *via* San Leandro and Alameda. There is also direct communication by steamer three or four times a month, for those who wish to go or return by water.

Monterey is beautifully situated on the southern extremity of the bay of the same name, which lies 78 miles south of San Francisco by water. This town was formerly the seat of government, and principal port on the coast of California. But, since the rise of San Francisco, its commerce and business have dwindled away, and now it is one of the most quiet places in the State, in 1870 containing only 1,112 inhabitants. The view of the town from the anchorage is very fine, especially if visited in the month of April or May. The green slopes upon which Monterey is built contrast beautifully with the forest of pines which grow upon the ridges beyond. The Rocky Bluffs afford

fine views. Monterey is reached by stage from San José, *via* San Juan, or by steamer from San Francisco.

Pescadero (38 miles by stage from Santa Cruz, and about 50 miles by sea from San Francisco) is a thriving town, beautifully situated in a remarkably productive valley, on both sides of Pescadero Creek, near its confluence with the Butano, about a mile from the sea-shore. The new San Francisco Water Company is to take its supply from the head of the creek. Near the town is the famous pebble-beach, where agates, opals, jaspers, cornelians, and other silicious stones, of almost every conceivable variety of color, are found in great abundance, with a natural polish imparted by the action of the waves and the smooth sea-sand. The industrious little town of Pescadero annually makes and exports to San Francisco 175,000 pounds of cheese and 50,000 pounds of butter. The great "Sanitary Cheese," weighing 4,000 pounds, measuring five feet six inches in diameter, and 22 inches thick, manufactured for the benefit of the "Sanitary Fund," 1863, was made in the Pescadero Valley. Pescadero is a favorite resort for San Francisco pleasure-seekers.

ROUTE XII.

SACRAMENTO TO MARYSVILLE, CHICO, OREGON CITY, AND PORTLAND.

Via Central Pacific and Oregon & California Railways, and by Sacramento & Portland Stages.

CENTRAL PACIFIC RAILWAY STATIONS.—Sacramento to Antelope, 14½ miles; Junction, 18.

CALIFORNIA & OREGON RAILWAY STATIONS.—Junction to Lincoln, 10 miles; Erving's, 14; Yuba, 32; Marysville (connects with river-boats to Sacramento Valley, Nevada, etc.), 33. Oroville (connects with California Northern Railway for Marysville and Sacramento), 28 miles; Chico, 96. (Stage for Roseburg leaves Oroville and Chico.)

SACRAMENTO & PORTLAND STAGE STATIONS.—Chico to Tehama, 27 miles; Sacramento to Tehama, 123; Red Bluff (connects with river-boats for Sacramento), 135; Shasta, 170; Trinity Centre, 220;

Callahan's, 245; Yreka, 285; Jacksonville (connects with stage for Waldo), 347; Rock Point, 360; Louse Creek, 377; Coxton's, 389; Leven's, 402; Cannonville, 415; Roseburg, 442.

OREGON & CALIFORNIA RAILWAY STATIONS.—Roseburg: Oakland, 460 miles; Eugene (connects with Portland by steamer), 517; Salem (connects with river-boats for Portland), 591; Oregon City, 630; Portland (connects with river-boats for the Upper Columbia and Idaho; with ocean-steamers for Puget Sound and British Columbia, and with a weekly line to San Francisco; and with Portland division of Northern Pacific Railway), 642.

Sacramento. (See page 118.)

Marysville (52 miles) is on the north bank of the *Yuba River*, near its junction with *Feather River*. It is the chief town of Yuba County, the head of navigation on Feather River, and a point of divergence for travel and freight to the northern mines. Rapidly-accumulating deposits in the rivers may soon make it necessary for it to rely upon railroad communications for its prosperity, of which it has hitherto had as much from the facility of receiving its supplies of merchandise by the Sacramento and Feather Rivers as from its proximity to many of the richest gold-mines of the State. One of the finest orchards in the State, located in the border of the city, was nearly destroyed by a deposit of sand left by an overflow of the Yuba River. The population of the town in 1870 was 4,375. Marysville connects with river-boats for Sacramento, with the *California & Oregon Railway* for Oroville, and with stages for Downieville, Grass Valley, Nevada, etc.

The Marysville Buttes.—From Marysville a fine view is obtained of the isolated chain of mountains known as the *Marysville Buttes*. They rise from the plain of the Sacramento valley to the height of 1,200 feet, and extend for some eight miles in length, forming a remarkable feature in the valley of the Sacramento. They embrace three principal peaks and many subordinate ones, and from the central, elevated, broken, rocky mass, there run off spurs in all directions, forming valleys between them. It is about 30 miles around the Buttes. The

view from the summit, which is easily accessible, is superb.

Oroville (80 miles from Sacramento), the capital of Butte County, is situated at the base of the foot-hills upon the main Feather River. It is a mining-town of some importance, with a rich agricultural country extending to the north and west. The population is about 1,000. At Oroville connection is made with stages for *Shasta*, and the northern mines, La Parte, Quincy, Indian Valley, and Susanville.

Chico (96 miles), the temporary terminus of the road, connects with stages for Red Bluffs, Northern California, and Portland, Oregon; also with Sacramento by steamer, and by stage with Oroville. It is a flourishing town, having in 1870 3,718 inhabitants. It is situated on *Chico Creek*, near its junction with the Sacramento River, and is the centre of a rich agricultural region, from which it receives a large trade.

Red Bluff (135 miles). Traveling through a rich agricultural region, over good roads, we cross the Sacramento River at Tehama, and, proceeding up the western bank of that stream 14 miles, we reach Red Bluff, a village of some 1,000 inhabitants, the capital of Tehama County, and situated at the head of steamboat navigation on the Sacramento River. A large amount of freight was formerly shipped from this point for the Humboldt and Owyhee mines. A steamer leaves Sacramento daily for Red Bluff.

As the traveller pursues his journey from Oroville toward the Oregon line, many fine farms or ranches are passed—Bidwell's at Chico, Neal's, and Lassen's being the oldest and best known, commanding many fine views of the mountains of the Coast Range, some of whose peaks rival those of the Sierra Nevada, especially Mount St. Helen, Mount Linn, and Mount St. John, which are each some 7,000 to 9,000 feet above the level of the sea. To the eastward, on our right, the snow-capped peaks of the Sierra Nevada rise gleaming in the sunshine.

Beyond Red Bluff we obtain a fine view of the *Lassen Buttes*, among the most prominent peaks of the Sierras. Beyond Cottonwood Creek, near Major Reading's ranch, we get a splendid view of Mount

Shasta, the highest mountain in California, a vast cone of snow rising to the height of 15,000 feet above the level of the sea, forming a magnificent landmark at the head of the Sacramento Valley.

Mount Shasta, or **Tehaste**, not only the most striking topographical feature of Northern California, but the largest and grandest peak of the Cascade and Sierra Nevada ranges, stands alone, at the southern end of Shasta Valley, in latitude 41° 30' north, longitude about 122° west. In approaching it from the north and south, there is a gradual increase in the elevation of the country for about 50 miles. The region near the base itself thus attains an altitude of 3,500 feet above the sea, and forms a vast pedestal for the Giant Butte.

Until the visit of Colonel Fremont, in 1843, the summit of Shasta had generally been deemed inaccessible—

"Aspiring to the eagle's cloudless height,
No human foot hath stained its snowy side,
Nor human breath has dimmed the icy mirror
Which it holds unto the moon, and stars, and
sovereign
Sun. We may not grow familiar with the secrets
Of its hoary top, whereon the Genius
Of that mountain builds his glorious throne!" *

"The view of the mountain from Shasta plains is very grand. With no intervening mountains to obstruct the prospect, the base is seen resting among dense, evergreen forests; higher up, it is girdled with hardy plants and shrubs to the region of frosts, and thence the sheeting snow. From the northeast and southwest a double summit, of unequal heights, is presented—both rounded and loaded with perpetual snow; but, from most points, a single cone is shown. Rising abruptly in grandeur and great beauty of outline, its white, cloud-like form, drawn clearly against the sky, is plainly visible from points to the south more than 200 miles distant. There are seasons, however, when the monarch, shrouding the white robes that glisten in the summer sun, retires to gloomy solitudes, and sits a storm-king upon the clouds, invisible to mortal eye.

"In the forests around Mount Shasta are found the maple, evergreen-oak, and several varieties of pine, including the

* Ode to Mount Shasta, by John R. Ridgo.

spruce, cedar, and fir. Chief among them all for symmetry and perfection of figure, is the majestic sugar-pine, nearly equaling the red-wood in size, and excelled by none as a beautiful forest-tree.

"The ascent may be accomplished in a favorable season—in August or September—without much danger or difficulty, by stout, resolute men. The extreme exhaustion realized in ascending Mounts Blanc or Popocatepetl, is not experienced; nor is the trial so dangerous by reason of huge fissures and icy chasms; the main difficulty arises from the rarefied condition of the air, to which the system must adapt itself rather suddenly for comfort.

"Shasta Valley spread beneath our feet its grassy plains and evergreen groves, dotted with villages, mines, and farms, the whole affording scenes unequalled in beauty, variety, and extent of landscape, and which may not be adequately described."

Shasta (170 miles) is situated in the foot-hills of the mountains stretching across the northern end of the State, connecting the northern Sierras with the Coast Range. It is a mining town of about 800 inhabitants, at what was once the northern extremity of wagon travel. Formerly all goods destined for mines farther north, had to be packed on mules, but there is now a good wagon-road over the Siskiyou Mountains, by the California Stage Company, for the purpose of transporting the United States mail between Sacramento and Portland, Oregon.

From Shasta the rich mining localities in the vicinity of Weaverville, distant 38 miles, and Humboldt Bay, on the Pacific coast, some 75 miles distant, can be visited on horse or muleback.

Leaving Shasta for Yreka, we pass the Tower House, 12 miles; French Gulch, 15 miles; Mountain House, 23 miles; Gibbs's Ferry, 35 miles; Chadbourne, 43 miles; Trinity Centre, 49 miles; and Thompson's, 60 miles; arriving at New York House, 64 miles, at the base of Scott Mountain, which is now to be climbed. In a distance of six miles farther we rise 2,060 feet. Every foot of the distance has been made into an excellent road-way by cutting into the solid rock, bridging chasms, excavating the precipitous side

of the mountain, walling up with stone, clearing away a dense growth of timber, and overcoming other obstacles. On the right rises the perpendicular embankment created in excavating for the road, while on the left the traveller looks down a fearful precipice, its side bristling with sharp and jagged rocks. The summit reached, we are upward of 5,000 feet above the level of the sea. Here, to the right, we again have a glorious view of Mount Shasta, covered with its snowy shroud. A continuous descent of seven miles brings us to the head of *Scott Valley*, and three miles beyond is *Callahan's Ranch*. Scott Valley is a level area 40 miles long and from three to nine miles wide, a beautiful tract of country, hemmed in on all sides by bold and precipitous mountains. Passing through *Fort Jones*, 22 miles north, and crossing a lofty divide at the termination of the valley, we arrive at Yreka, 115 miles from Shasta.

Yreka (285 miles), the capital of Siskiyou County, was formerly the most important mining-town north of Oroville. It has about 1,500 inhabitants, is well laid out, has many fine buildings, and is lighted by gas. It is situated in the valley of the Shasta Creek, is encompassed by mountains, and is distant from the Oregon State line 28 miles. The mines in the vicinity are very productive, giving the place a steady and rapid growth. A fine view of Mount Shasta, distant some 30 miles, is attained from the ridge east of the town.

Proceeding north, we pass through *Cottonwood*, 20 miles, to *Cole's*, 28 miles, where there is a good way-side inn. Here we ascend the Siskiyou Mountain, four miles, and from its summit get the last glimpse of Mount Shasta. Descending the mountain four miles to its base, and traversing 20 miles of rolling country, we arrive at

Jacksonville, Ogn. (347 miles), the principal town of Southern Oregon, situated in the fertile Rogue River Valley, about nine miles south of that river. It is noted for its fine scenery and the salubrity of its climate. The soil is favorable for grain and fruits. Crops have never failed since the first settlement of the valley in 1852.

Roseburg (442 miles) is where

the traveller again strikes the railroad which is completed from this place to Portland, 200 miles distant. The entire road will shortly be in operation.

Eugene City, Ogn. (517 miles), the capital of Lane County, is on the *Willamette River*, about 80 miles above Salem. Population about 1,000. Eugene connects with Portland by steamer.

Albany, Ogn. (567 miles), the chief town of Linn County, is on the *Willamette River*, about 110 miles above Portland. It is surrounded by a rich farming-country, and connects with Portland by steamer.

Salem, Ogn. (591 miles), is the capital of the State. It is situated in the midst of a fine farming-country, on the east bank of *Willamette River*, 50 miles southwest from Portland, and 62 miles from Columbia River. The population is about 5,000. The city is mainly indebted for its prosperity to the agricultural resources of the fertile country in which it lies. It has good water-power, which is much improved by bringing water from the *Santiam River* to the *Willamette* by means of a canal. Among the manufacturing establishments of Salem are a woollen-mill, using annually 400,000 lbs. of wool, and employing 150 operatives, and a large flouring-mill. The *Willamette University* is a flourishing institution, on the same side of the river. Apple and various other fruit trees abound in the vicinity. Salem connects by steamer with Portland.

Oregon City, Ogn. (630 miles), is a place of about 2,000 inhabitants, at the *Falls of the Willamette*. The main portion of the city extends for nearly a mile under a bluff rising to a height of 140 feet on the east side of the river, some 500 feet from its bank. The top of the bluffs affords a fine view of the falls, the city, and the surrounding country. The falls are semicircular, having a descent of 38 feet. They constitute one of the finest water-powers in the world. A breakwater has been constructed here by the *People's Transportation Company*. It extends some distance, forming a basin large enough to receive and discharge freight from the upper *Willamette* into the boats below the falls. The basin is also used for water-powers. There are

two flourishing flour-mills in the city—the *Imperial*, with six run of stone, having a grinding capacity of 200,000 bushels of wheat, and the *Oregon City Mills*, with four run of stone, of 150,000 bushels. The city has the largest woollen-manufactory in the State, giving employment to about 100 persons, and capable of manufacturing 1,000,000 lbs. of wool per annum.

Portland, Ogn. (642 miles), will be described in ROUTE XIV.

ROUTE XIII.

SACRAMENTO TO MARYSVILLE.

By Steamer up the Sacramento and Feather Rivers.

LANDINGS.—Sacramento to Russian Crossing, 10 miles; Fremont, 25; Nicolaus, 40; Hock Farm, 55; Plumas, 57; Eliza, 62; Marysville (connects with cars for Oroville), 65.

Sacramento is described in THROUGH ROUTE XVIII. (*see* page 118), and the Sacramento River, as far north as that city, is described in ROUTE I. of CALIFORNIA.

On each side of the river, as we ascend it, the overflowing water is seen covering the adjacent country in some places for many miles, giving the appearance of a succession of lakes. The tributaries of the Sacramento are all similarly swollen, and the destruction of property on their banks must be immense. Orchards, vineyards, gardens, and thousands of acres of rich bottom-lands, are under water. Leaving Sacramento a few miles behind us, we find the "tules" (*see* page 268) disappearing, and, before we reach Knight's Landing, they have given way to wheat-fields and gardens which line the river-banks.

About 25 or 30 miles above Sacramento, the Sacramento River receives one of its largest affluents,

Feather River, which we ascend at Vernon, and find also to be rolling down a swift tide of turbid water, thick with sediment from the gold belt of the mountain-region, the great source of sand-bars and general lifting of the river-bed and obstruction of the channel, thus impeding steamboat navigation, as well

as injuring seriously the agricultural interests of the State by increasing the liability to overflow.

Large timber is only occasionally seen along the river-banks, and this differs from that of the Atlantic States, in the gnarled and scraggy appearance of the trees. The usual inhabitants of these forests are the *Digger Indians*, whose lodges—if such they can be called, which are merely hollow mounds of earth into which they burrow through a hole—stand in clusters, giving shelter to the most wretched-looking of the native races, whose food is the acorn and such esculent roots as they can dig from the earth, seasoned occasionally with a worm or a grasshopper; and whose clothing, if clad at all, the tattered cast-off garments of the miner, picked up on the way-side.

Nicolaus (40 miles) is a dull, unimportant town, of about 500 population, situated at the junction of *Bear* and *Feather Rivers*. The lands surrounding it used to be among the best for farming purposes in this part of the State, but the frequent overflows of Bear River have almost ruined them.

Proceeding up the Feather River, we pass *Hock Town*, a beautiful place owned by the venerable pioneer of California, General Sutter. The old farm-house and iron fort stand on the bank, which is lined here with enormous fig-trees. Behind these we catch a glimpse of the orchards and vineyards planted by the general nearly half a century ago.

We reach the junction of the *Yuba* and *Feather Rivers*, to the right (entering Yuba), and soon arrive at

Marysville (65 miles). (See page 283.)

ROUTE XIV.

SAN FRANCISCO UP THE COAST.

To Portland, Oregon, Puget Sound, Washington Territory, and British Columbia.

STEAMERS leave San Francisco every few days for Oregon, Washington Territory, and Victoria, in the British possessions, touching at Mendocino, Humboldt Bay, Trinidad, Crescent City, Port Oxford, Portland, and sometimes Vancouver, on the Columbia River, and various points on Puget Sound, and Victoria on Van-

couver's Island. The steamers of the North Pacific Transportation Company leave San Francisco every ten days for Portland, connecting at *Astoria*, with steamer, for Monticello; and at Portland, with steamer for Victoria, B. C., with the Oregon Steam Navigation Company's steamers for *Dalles* and *Wallula*, and with the People's Transportation Company's steamers for all points on the *Willamette River*. Portland is reached in about three days by steamer. By rail and stage-coach, as described in ROUTE XII. of California, the journey occupies a week. Tourists should go one way and return by the other, at least till the Northern Pacific Railway is completed. Many of the northern mines near the coast are easily accessible from Humboldt Bay, Trinidad, Crescent City, and Port Oxford in Oregon, the gold-range approaching the coast. Coal is also found in immense beds in the vicinity of Coosa Bay, Oregon.

Embarking on one of the California Steam Navigation or North Pacific Transportation Company's lines for a trip up the coast, we touch at Mendocino, or pass it, 128 miles northwest of San Francisco; Humboldt Bay, upon which the thriving towns of Eureka and Arcata are situated, 230 miles; arriving at Crescent City, some 300 miles from San Francisco.

Mendocino City, Cal. (128 miles), the capital of the county of the same name, is on the north shore of Mendocino Bay, at the mouth of the *Big River*. It is the shipping-point for large quantities of lumber from the extensive redwood-forests of the county.

Eureka, Cal. (223 miles), the capital of Humboldt County, is the principal centre of the large lumber-trade on *Humboldt Bay*, being surrounded by dense redwood-forests, and is also the principal depot of the farm-lands of Eel River Valley. It is a flourishing place of about 3,000 inhabitants. It connects with Petaluma by stage, *via* Cloverdale.

Arcata, Cal. (236 miles), is on a level plateau at the head of Humboldt Bay. It does a large trade with the mining-region of the interior, and is the centre of a section noted for the production of potatoes. Stages run from Arcata to Cloverdale Sonoma County.

Crescent City, Cal. (280 miles), the capital of Del Norte County, situated on a safe little harbor, is the natural shipping-point for a large part of the interior. A good wagon-road connects it with Jacksonville and the mines of Southwestern Oregon.

Proceeding north we touch *Port Oxford* (70 miles), from which much lumber is exported; *Fort Umpqua* (140 miles), near the mouth of *Umpqua River*, which drains a fertile and productive valley, and arrive at Astoria.

Astoria, Ogn. (300 miles north of Crescent City, and 566 miles north of San Francisco), is a flourishing place on a harbor formed by the widening of Columbia River, nine miles from its mouth. It is one of the oldest ports on the northern coast, and its excellent location would seem favorable to making it one of the principal ports in the State. Astoria connects by steamer for Monticello.

Columbia River.—The scenery of the Columbia River is wild and grand beyond description. Vessels of the largest size proceed up the river from Astoria, at the mouth, to Vancouver, a distance of about 100 miles, and beyond to the falls of the river, where the Cascade Range of mountains crosses. Some of the mountain-peaks of the Cascade Range, among which may be mentioned *Mount Hood*, *Mount Jefferson*, and *Mount St. Helen's*, rival those of the Andes. They are covered with perpetual snow, and can be seen from various parts of the river.

Portland, Ogn. (670 miles from San Francisco), the chief city of Oregon, and the Columbia basin, the northern terminus of the California & Oregon Railway, is situated on the Willamette River, near its confluence with the Columbia. It contains about 12,000 inhabitants. The *Willamette River*, flowing north between the Coast and Cascade Ranges of mountains, empties into the Columbia about 100 miles from the ocean. The valley of the Willamette is the garden of Oregon, and contains a large population of permanent settlers, many of whom had located on farms some time before the settlement of California by Americans commenced. A month's travel

to the various places and points of interest on the Columbia would amply repay the tourist. (For continuation of the route, see chapters on OREGON and WASHINGTON.) Portland connects with steamers for Victoria, Dalles, and Wallula.

Puget Sound.—Proceeding up the coast we find no other seaport till we reach Puget Sound, one of the most magnificent harbors in the world. While the sound is so deep that vessels of the heaviest burden can traverse any part of it with safety, it is nowhere too deep for convenient anchorage; and in many places vessels can ride boldly up to the shore for purposes of loading, without the intervention of wharves. The lumber from some of the saw-mills on the sound is shipped in this way. Puget Sound is reached by a daily line of steamers from Portland, Oregon, to Monticello, Washington, situated on the Cowlitz River, two miles above its mouth, thence by stage to Olympia twice a week. Entire distance from Portland to Olympia, 92 miles. The journey takes two days. From Olympia, the route is continued tri-weekly to Victoria, Vancouver's Island, by steamer, which touches at the principal landings on the sound. Agriculture and the manufacture of lumber form the leading interests of this region. Several thrifty towns have sprung up on different inlets of the sound, among them *Port Townsend*, *Olympia*, being the capital of Washington Territory, situated in the vicinity of the superb water-power of Tum-water, *Steilacoom*, and *Seattle*, which are the termini of trails and military roads leading through the Cascade Range to the mineral regions beyond. (See chapter on WASHINGTON TERRITORY.) *Whitby's Island*, at the entrance of the sound, contains many fine farms, and its verdant bluffs, rising boldly from the water's edge, are very beautiful in spring and summer. Several majestic mountain-peaks are visible from the waters of the sound, forming some of the most sublime scenes on the western coast of America. Among these are *Mount Baker*, *Mount St. Helen's*, and *Mount Rainier*, whose summits are from 12,000 to 15,000 feet above the level of the sea, and covered with perpetual snow. Some of these have shown volcanic action within the

last few years. *Mount Baker*, 14,000 feet high, was in active eruption in 1860. From Port Townsend the traveller can reach the mouth of the Columbia, or indeed Sacramento in California, without returning by the ocean route. Proceeding by steamer to the head of the sound at Olympia, or by stage on the west side of the sound to the same point, he can journey thence through the Cowlitz farms to Vancouver on the Columbia River.

Vancouver, formerly the capital of Washington Territory, is a flourishing town, on the north side of the Columbia River. The distance from Vancouver to Portland is 18 miles by water, and the entire distance from Port Townsend to Portland is about 230 miles. From Portland the daily overland mail to Sacramento takes the traveller up the valley of the Willamette, across Umpqua and Rogue Rivers to Jacksonville, and thence through Yreka, Shasta, and Marysville to Sacramento, 642 miles from Portland, making the longest stage-route in the Union, with the exception of that now almost out of use across the continent between California and the Missouri River.

The eastern slope of the Cascade Range in Washington Territory, though but partially developed, gives indications of great mineral wealth. The Wenatchee, Samilkameen, and Rock Creek gold regions, have attracted many adventurers, and yielded their treasures bountifully. From Steilacoom a military wagon-road leads through a pass in the Cascade Range to Walla-Walla (*see chapter on WASHINGTON TERRITORY*), 250 miles southeast on the Columbia River. Beyond Walla-Walla lies the Nez Perces gold-region.

Victoria, on Vancouver Island, the principal town of British Columbia, is a free port at the southern extremity of Vancouver Island, opposite the mouth of Admiralty Inlet or Puget Sound. *Esquimalt*, three miles distant, is a naval station, much frequented by British men-of-war on the Pacific coast. The coal-mines of Kanaimo on the north, the gold-fields of Cariboo, in British Columbia, and the large lumber-region of Puget Sound on the south, are all tributary to Victoria. The vicinity of the port offers

the greatest inducements to tourists and pleasure-parties. The climate is warm and pleasant, the mean average in summer being from 60° to 65°; there are charming scenery, excellent roads, and good shooting, fishing, boating, and hunting. The population of Victoria is about 5,000.

New Westminster, the capital of British Columbia, and next to Victoria the largest town in the British dominions on the Pacific, is situated on Fraser River, near the head of navigation.

ROUTE XV

SAN FRANCISCO TO THE BIG TREES OF CALAVERAS, AND TO THE NATURAL CAVES AND BRIDGES.

By Railway or Steamer to Stockton; thence to Big Trees via Stockton & Copperopolis Railway, and by Stages.

STATIONS. — *Stockton & Copperopolis Railway, etc.*: Stockton (90 miles from San Francisco) to Milton, 28 miles; Murphy's, 53; Big Trees, 68 (158 miles from San Francisco); Natural Caves, 172 miles from San Francisco.

The trip from San Francisco to Stockton may be made by taking the cars of the Western Pacific Railway at Oakland, or by the steamers which leave Broadway Street wharf daily, except Sunday, up San Francisco Bay and San Joaquin River, touching at Benicia (30 miles), New York Landing (45 miles), and Antioch, at the mouth of the Joaquin (50 miles).

The route from San Francisco to Stockton by the Western Pacific Railway has been described in *THROUGH ROUTE XVIII.* (*See pages 119-121.*)

The steamboat route up the Bays of San Francisco and San Pablo has been described in *ROUTE I. of CALIFORNIA.* (*See pages 267, 268.*)

San Joaquin River is a shallow, winding stream, its banks covered on either side with tules. It is divided into three branches, called, respectively, the west, middle, and east channels. The middle channel is the one used by the Stockton steamboats, except within four miles of that city, from which point the Stockton slough is used. The east or main channel is navigable for small,

stern-wheel steamers as far up as Fresno City. Among the many tributaries of the San Joaquin are the Mokelumne, Calaveras, Stanislaus, Tuolumne, and Merced Rivers.

Antioch (50 miles from San Francisco) is the depot of the Monte Diablo coal-mines.

Milton (118 miles) is on the *Stockton & Copperopolis Railway*. This new road carries the tourist over the hottest, dustiest, and most uninteresting portion of the distance from Stockton to the Big Trees and the Yosemite. Copperopolis is on one of the shortest routes to both places, so that every mile of rail saves one of stage-riding. The distance by stage from Milton is 47 miles. The distance to Hutchings's Hotel from Stockton, by the Tuolumne, Big Oak Flat, is 109 miles, including 28 by rail, 65 by stage and 16 by horseback.

Sisson & Co.'s stages leave Milton daily from Murphy's (25 miles), Nassau Valley, Altaville, Angel's Camp (formerly surrounded by rich placer-mines), and Valicita. The route is a pleasant one, lying through country abounding in picturesque scenery. The stages are comfortable, and the journey is made as rapidly as possible. It is usual to stay over at Murphy's, where good accommodations may be had at from \$2 to \$3, and start by stage in the morning for the Big Trees, distant 15 miles. This part of the route is very beautiful for several miles, the tourist following a clear stream of water through shady groves of pines and oaks. There is a good hotel at the grove; expenses \$3 per day.

The Big Trees (158 miles) are considered by some travellers one of the greatest wonders of the world. They are situated in Calaveras County, near the *Stanislaus River*. The grove was discovered before the Mariposa grove, and consequently obtained more notoriety. There are between 30 and 40 "big trees" here, and a much larger number of smaller ones of the same species. The largest, "*Mother of the Forest*," is 61 feet in circumference at the height of 6 feet from the ground. The highest is the "*Keystone State*," 325 feet in height; one of the trees of this grove which was felled occupied five men for 21 days,

pump-augers being used for boring through the tree. After the trunk was severed from the stump it took the five men three days, with ponderous wedges, to topple it over. The bark was 18 inches in thickness.

The whole number of trees is 92; height from 150 to 325 feet; diameter 10 to 30½ feet; elevation above the sea 4,759 feet; age, from 1,200 to 2,500 years. At the South Grove (six miles from the Calaveras), there are 1,380 trees, they are of larger size than in any other grove. The trip is made on horseback, and takes about two hours. Stages return to Murphy's every evening, from which place one may proceed to Yosemite, *via* Big Oak Flat, or Coulterville, or may return to San Francisco; but, after seeing the Big Trees of Calaveras, the tourist should, if possible, visit

The Natural Caves and Bridges in the same county. The caves are situated on what is called McKinney's Humbug, a tributary of the Calaveras River, near the mouth of O'Neill's Creek, 14 miles west of the Big Trees, 16 miles south of Mokelumne Hill, and 9 miles east of San Andreas. The bridges are on Cayote Creek, midway between Valicita and McLane's Ferry, on the Stanislaus River. The entire water of Cayote Creek runs beneath these bridges. The bold, rocky, and precipitous banks of the stream, both above and below the bridges, present a counterpart of wild scenery in perfect keeping with the strange beauty and picturesque grandeur of their interior formation.

THE YOSEMITE REGION.

ROUTES TO THE YOSEMITE VALLEY AND THE BIG TREES OF MARIPOSA.

No one who visits California should fail to see the Yosemite Valley and the Big Trees, which may truly be classed among the great wonders of the world. There are four principal routes to this remarkable region, the two main ones being represented by the rival railway companies of the State, viz., the Central Pacific and the California Pacific.*

* Since the above was in type, the Central Pacific Railroad Company has purchased the California Pacific Railroad line between Vallejo and Sacramento.

By the first of these latter one reaches Modesta, on the *Visalia Division* of the road, and proceeds thence to Yosemite by stage or private conveyance, and on horseback, *via* Snelling, Hornitos, Bear Valley, Princeton, Mariposa, White and Hatch's, and Clark's, taking in the Mariposa Big Trees.

By the *California Pacific* route the tourist reaches Stockton from San Francisco by steamer up the bays of San Francisco and San Pablo, and the San Joaquin River, and takes the cars of the *Stockton & Copperopolis Railway* for Milton. Before proceeding to Yosemite, he can visit the Big Trees of Calaveras from

Milton, and continue his way to the valley and the Big Trees of Mariposa by way of Sonora and Chinese Camp.

From Sacramento, the best route is by the *Western Division of the Central Pacific Railway* to Galt, thence by stage *via* Jackson and Mokelumne Hill, to the Big Trees of Calaveras, and to the valley and the Big Trees of Mariposa by way of Sonora and Chinese Camp.

What is known as the Coulterville route is by way of Stockton, Knight's Ferry, Coulterville, Bower Cave, Tamarack Flat, to the Yosemite, and thence south to Clark's and the Big Trees of Mariposa.

THE CENTRAL PACIFIC RAILWAY OR MARIPOSA ROUTE.

		MILES.
By Rail.	{ San Francisco to Lathrop.....	81
	{ Lathrop to Modesta.....	20 — 101
By Stage.	{ Modesta to Mariposa.....	69
	{ Mariposa to White and Hatch's.....	12 — 81
On Horseback.	{ White and Hatch's to Clark's.....	12
	{ Clark's to Alder Creek.....	6½
	{ Alder Creek to Empire Camp.....	3
	{ Empire Camp to Westfall's Meadow.....	4
	{ Westfall's Meadow to Inspiration Point.....	5
	{ Inspiration Point to Lower Hotel.....	7½ — 88
Total distance.....		220
<hr/>		
By Rail.	{ Sacramento to Lathrop.....	57
	{ Lathrop to Modesta.....	20 — 77
By Stage.	{ Modesta to Mariposa.....	69
	{ Mariposa to White and Hatch's.....	12 — 81
On Horseback.	{ White and Hatch's to Clark's.....	12
	{ Clark's to Westfall's Meadow.....	13½
	{ Westfall's Meadow to Inspiration Point.....	5
	{ Inspiration Point to Lower Hotel.....	7½ — 88
	Total distance.....	196

This is a favorite route to the Yosemite and the Mariposa Big Trees, and quite a cheap one, the whole cost from San Francisco being \$25, or \$46 both ways, covering passage by rail, stage, and horseback, the expense of guides, packing baggage, and, in fact, every thing but board and lodging. The trip to the valley may be made in 48 hours by this route, of which period little more than 30 hours are spent in actual travel. In six days, therefore, the tourist can visit Yosemite and spend two days in seeing its scenery, although ten days at least should be given to the trip.

The proper way for travellers is, undoubtedly, to make the "round trip," going into the valley on one side and re-

turning on the other, as the trail on the Mariposa side takes one near the Big Trees, and, besides, furnishes by far the best view of the valley; while, on the Coulterville trail, we have the Bower Cave and many fine views of the distant Sierra. It is for the traveller to decide whether he prefer obtaining these general views of the valley after he has already been there, or on his way into it. To have the whole grandeur of the Yosemite revealed to him at once, he should accompany us on our present trip, entering the valley on the Mariposa side; if, on the other hand, he prefer to see the various points of beauty in succession, and, as he leaves the valley, to take in the grand general views, he should enter by the Coulter-

ville route (of which we shall speak presently), and depart by the Mariposa side.

Leaving San Francisco we take the cars of the Central Pacific Railway to *Lathrop* (81 miles), where we connect with those of the *Stockton & Visalia Railway* for *Modesta* (in the San Joaquin Valley), 20 miles distant. The latter place is reached in three or four hours from either San Francisco or Sacramento. Early in the morning Fisher & Co.'s stages leave *Modesta* for *Mariposa*, 69 miles distant, passing through the various villages of the old Fremont estate, Snelling, Hornitos, Bear Valley, and Princeton.

Snelling (134 miles from San Francisco) is on the *Merced River* (River of Mercy), which is crossed on a rope-ferry. We stop at this place for breakfast.

Hornitos (146 miles), a curious old mining-town, connects with stages for *Visalia*. We see about here on every side the remains of old adobe huts, and in every ravine, long-deserted placer-mines. A few hours' ride brings us to

The Great Mariposa Tract granted to Fremont in 1848. The grant is 44,386 acres, 70 square miles of the finest mineral lands in the State, gold, silver, copper, iron, and coal, being here in abundance. A fine quartz-mill, of twenty-five stamps, is in operation at the upper end of the valley. The quartz-rock is brought from the mountains in cars, is placed beneath the crushers or stamps, and is soon reduced to dust. The water in wooden sluices washes this dust away into long wooden boxes, through which it must pass to escape. On the bottom of the sluices and boxes are little nests of quicksilver, which seizes every particle of gold, like a loadstone, which passes near it, while the mud and crushed quartz are washed away by the water. The quicksilver is then heavy with the particles of gold, and, taken from the sluices or boxes, the amalgam is put in the crucible and the fine metal formed into bars.

Mariposa (170 miles), the capital of the county of the same name, is the most southerly of all the mining-towns of importance in the State. It is the principal centre of the great mining-operations of the Mariposa estate. Population about 1,200.

Toiling up hill after hill, running around the side of vast mountains with a road-bed only a few inches wider than the axles of the wagon, one mishap or the slightest break would roll us down thousands of feet into the chasm below. We climb hill after hill, until, after about five hours' riding, we turn the summit of the mountains, and commence the descent; the driver uncoils his whip and lets it fly like an admiral's pennant—away the horses go on a full, swinging trot down the sides of the mountains, the hub of one wheel just shaving the rocks of one side, while the tire of the other wheel is only an inch or two from the almost perpendicular sides of the mountain. Early in the evening we arrive at

"White and Hatch's" (182 miles), a beautiful spot among the foothills, where we shall find excellent accommodations for the night. The next day a four-hours' ride will bring us to

Clark's Ranch (194 miles), on the *South Fork* of the *Merced River*, and the rest of the day will be best spent in a visit to the Mariposa Big Trees, about five miles from Clark's; while the third day will find us on horseback to the valley itself.

Mariposa Big Trees.—This grove is generally regarded as more attractive than the *Calaveras Grove*, the trees here being greater in diameter and much more numerous. There are 427 big trees in the Mariposa Grove, varying in size from 20 to 34 feet in diameter, and from 275 to 325 feet in height. They are of redwood, tall, and perfectly straight, and belong to the *Sequoia gigantea* species, first discovered in 1852. The leaf is very much like the *Arbor vitae*. The bark is soft and very spongy, and of a light-brown color; on all the largest trees it measures from twenty to thirty-two inches in thickness.

"These trees are," says Mr. Galen Clark, the guardian of the grove, "over two thousand three hundred years of age." The largest in the grove is "The Grizzly Giant;" it is 107 feet in circumference, and in the thickest place 34 feet in diameter. The first branch is nearly 200 feet from the ground, and is eight feet in diameter.

"The Faithful Couple" is probably 28 feet in diameter; it reaches 70 feet out of the ground and forms into two trees on one stem; the faithful couple of trees having in reality but one life, and being but one. The remains of a prostrate tree, now nearly consumed by fire, indicate that it must have reached a diameter of about 40, and a height of 400 feet. The trunk is hollow, and will admit of the passage of three horsemen riding abreast. The only tree which approaches the *Sequoia* in size and grandeur is the *Eucalyptus* of Australia, which is 80 to 90 feet in circumference.

Returning to Clark's Ranch for dinner, we start immediately afterward on horse- or mule-back, for the Yosemite Valley, and, before dark, reach the *Mountain-view House*—a log cabin. Resting here for the night, at daybreak we set out for *Sentinel Dome*, one of the highest walls of the *Yosemite*. For three or four hours we toil up the mountain-side amid rocks, running-streams, brooks, trees of a century's growth—pine, cedar, and oak. Suddenly through an opening in the trees we behold the bald head of the Sentinel. Tying our horses to a tree, we climb to the very tip-top of the dome and stand upon its bare and barren summit, about 4,000 feet above the valley at our feet. The view is beyond description, while thoughts fill the heart and crowd the soul with unutterable emotion at the grandeur of the scene; it cannot be traced in words. Away to our right and east, clad in the finest of snow, are the peaks of the *Lyell Group*, shining like silver mountains in the morning sun. Nearer to us, and still at our right, peering up into the bright blue of heaven, is the bare, barren, desolate, untrodden peak of the *South Dome*, about 6,000 feet in height. To our left rise in stately majesty the tunnel peaks of the *Cathedral Rock*, and nearer, the Cathedral spires, while opposite stands old *El Capitan*, great chieftain of the valley, 3,100 feet high. Directly opposite, shaking the earth with its tumble, and making the air vibrate with its roar, in all its unparalleled beauty, and taking its unequalled leaps of 2,634 feet into the awful chasm, is one of the greatest of Nature's water-works, the *Yosemite Falls*.

To the northeast are the *North Dome*, *The Archers*, *Mount Broderick*, and *Washington Column*, bare, rugged, and almost perpendicular, varying from 3,000 to 5,000 feet high. In the valley and winding through it like a ribbon of polished silver, about 4,000 feet below us, is the clear, beautiful Merced River, now hid by rocks, now white with leaping over its stony bed, now shining in the sun, now hid by trees, again appearing far below its hiding-place, meandering through a field of living emerald, and then losing itself in the rocky gorge to appear away at the extremity of the valley.

Retracing our steps, we come to the *Mountain-view House* for dinner. To reach the valley we must travel 12 miles. The ride is a rough one. At times we are climbing the edge of a mountain, and are so close to its side that to see down for 2,000 feet in a straight line is no uncommon thing. By-and-by we are buried in the narrow valley between two hills. Crossing a morass, with the mud up to the stomach of the horse, is not an unusual occurrence. Wading swift-running brooks, clambering over stones and boulders, and jumping fallen trees, fill up the measure of our ride for the first six miles. All at once we are on a little green plateau, about 20 feet square, on the very verge of the southwest wall of the valley. This is the world-renowned *Inspiration Point*. We dismount, raise our eyes to the east, and behold in one glance the whole Yosemite Valley. One glance is sufficient; as on the plate of the photographer, that view is impressed upon the photographic plate of the heart, never, never to be effaced—mountains, rock, perpendicular ledge, towering spires, thousands of feet high, snow-clad mountains, bald peaks, peering into the blue vault of heaven, barren domes of gray granite, water-falls, cascades and brooks, green fields and winding streams. Some of the grandest wonders of the world are taken in at one view—the whole Yosemite seen at one glance. We think we could spend a lifetime here; but time is precious, as night is coming on; so we remount our horses, and, turning our back upon Inspiration Point, begin descending into the valley. For three hours we toil in

the descent. To ride down the trail would be risking life and limb; so we dismount and almost slide down the hill. However, we get to the bottom of the valley in safety at last, and now a few words about this wonderful chasm, known as

Yosemite Valley. It is situated on the *Merced River*, in the southern portion of the county of Mariposa, 140 miles a little southeast from San Francisco, but nearly 250 miles from that city by any of the usually travelled routes. It is on the western slope of the Sierra Nevada, midway between its eastern and western base, and in the centre of the State, measuring north and south. It is a narrow gorge, about 8 miles in length, from a half to a mile in width, and enclosed in frowning granite walls rising with almost unbroken and perpendicular faces to the dizzy height of from 3,000 to 6,000 feet above the green and quiet vale beneath. From the brows of the precipices in several places spring streams of water, which in seasons of rains and melting snows form cataracts of beauty and magnificence surpassing any thing known in mountain-scenery.

This valley was discovered in the spring of 1851 by a party under the command of Major James D. Savage, in pursuit of a band of predatory Indians, who made it their stronghold, considering it inaccessible to the whites. Its name, "Yosemite" (pronounced as if terminating in *y*), was given to it in the belief that it was the Indian term for grizzly bear.

Several Indian names have been given to prominent rocks and falls in the valley, but, as these are difficult of pronunciation, and as it is doubtful whether these savages ever had names for such objects, with a few exceptions, they have been discarded, and the more appropriate and definitive names of our own language adopted. The chief features of the valley are threefold: First, the perpendicular walls; second, their great height, as compared with the width of the valley; and third, the very small amount of talus or *débris* formed at the base of these gigantic mountains of rock. Many are the opinions respecting the formation of the Yosemite, but the most general one is that, by some volcanic action, these great mountains of rock, like the Lyell and Merced groups, have been suddenly rent in twain, from dome to base, and the chasm thus made widened by further volcanic action to its present width. The valley is almost one vast flower-garden; plants, shrubs, and flowers of every hue, cover the ground like a carpet; the eye is dazzled by the brilliancy of the color, and the air is heavy with the fragrance from a million blossoms. Trees of five and six hundred years' growth raise their tall heads heavenward, yet beside and in comparison with the vast perpendicular clefts of rocks, they look like daisies beside a tall pine. On every hand are seen the beautiful and many-colored manzanita and madrone, and trees of such shape and variety as are never seen in the Atlantic States.

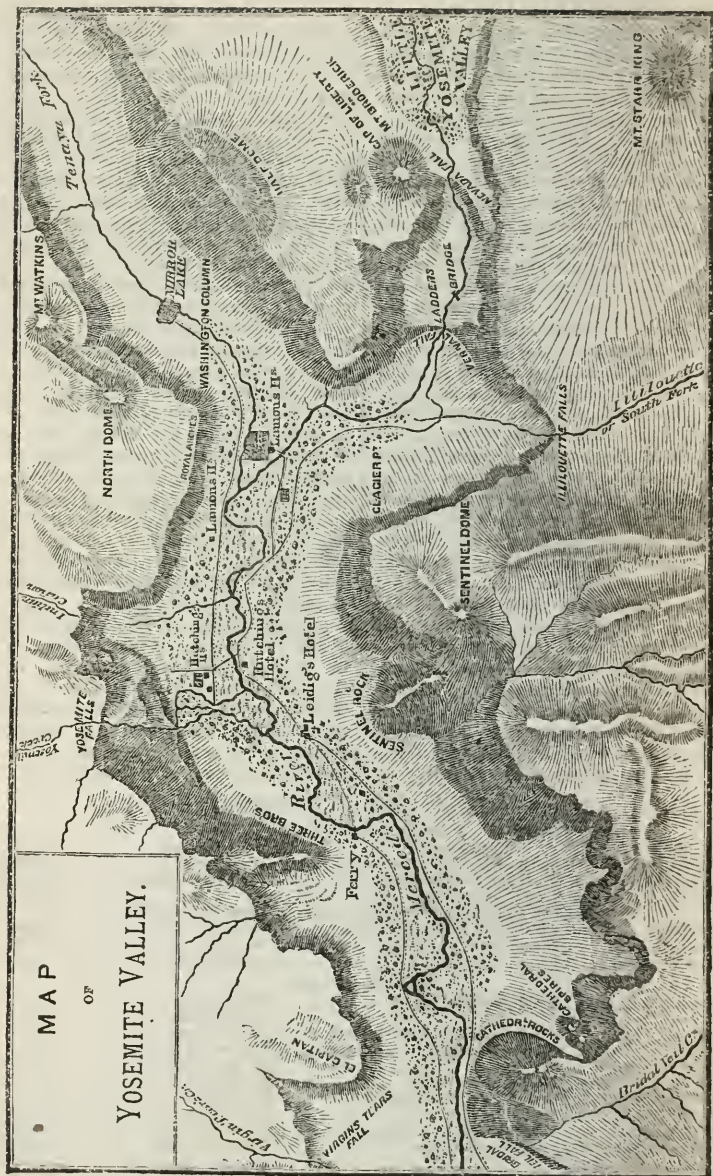
TABLE OF ALTITUDES OF YOSEMITE VALLEY.

WATER-FALLS.

Indian Name.	Signification.	American Name.	Height above Valley.
Po-ho-no.....	Spirit of the Evil Wind.....	Bridal Veil.....	940 feet.
Lung-oo-too-koo-ya.....	Long and Slender Fall.....	The Ribbon Fall.....	3,300 "
Yosemite.....	Large Grizzly Bear.....		2,634 "
	(First Fall, 1,600 feet; Second Fall, 434 feet; Third Fall, 600 feet.)		
Pi-wy-ack.....	Cataract of Diamonds.....	Vernal.....	350 "
Yo-wi-ye.....	Meandering.....	Nevada.....	700 "
Tu-lool-we-ack.....		South Cañon.....	600 "

MOUNTAINS.

Tis-sa-ack.....	Goddess of the Valley.....	South Dome.....	6,000 "
		Cloud's Rest.....	6,450 "
To-coy-a.....	Shade to Indian Baby-Basket.....	North Dome.....	3,725 "
Mah-ta.....	Martyr Mountain.....	Cap of Liberty.....	4,600 "
Fee-wah-lani.....		Mt. Starr King.....	5,600 "
Er-na-ting Law-oo-too.....	Bear-skin Mountain.....	Glacier Rock.....	3,700 "
Tu-toch-ah nu-lah.....	Great Chief of the Valley.....	El Capitán.....	3,300 "
Wah-wah-le-na.....		Three Graces.....	3,750 "
Pou-pou-pa-sus.....	Mountains playing Leap-frog.....	Three Brothers.....	4,200 "
Poo-see-nah Chuck-ka.....	Large Acorn Cache.....	Cathedral Rock.....	2,400 "
		Sentinel Dome.....	4,000 "
Loya.....		Sentinel Rock.....	2,270 "



El Capitan is the most prominent attraction to the eye; and, although not so high by several thousand feet as some of its giant neighbors, yet, its isolation, its breadth, its perpendicular sides, its bold, defiant shape, its prominence as it stands out like a great rock promontory into the valley, make it, as its name indicates, the *Great Chief of the Valley*. It is 3,300 feet in height. Approaching the base of the mountain and bending the head and stretching the eye away up heavenward and by degrees taking in the full view of the Chieftain, the beholder will stand in mute astonishment. There is no slope to El Capitan; its massive gray granite sides, destitute of vegetation, are perpendicular.

Looking up the valley from the foot of the Mariposa trail, El Capitan is seen on the left, and on the right the *Cathedral Rocks*, with the ever beautiful and swaying *Po-ho-no*—Spirit of the Evil Wind—*Bridal-veil Fall* jumping in sportive glee a distance of 940 feet into the valley. The water, long ere it reaches its rocky bed, is converted into mist, so that like a living, laughing, jumping snow-storm the water descends into its rocky bed. Caught by the gentle wind in the valley, the waters are wafted hither and thither, at times wide-spreading like a veil, and again closing as if to hide its purity; swaying now to the right and now to the left, ever changing, ever beautiful, ever waving, ever running *Bridal Veil*—it is the charm of the Yosemite. At the east of *Po-ho-no* are the *Cathedral Rocks*, 2,600 feet in height, standing like isolated church-spires, of solid granite, with rocky sides gently sloping from the base to the pinnacle, with no signs of vegetation on the rugged sides, and as yet no human foot has stood on that barren eminence.

The Virgin's Tears Creek, directly opposite the *Bridal Veil*, makes a fine fall, over a thousand feet high, included in a deep recess of the rocks near the lower corner of El Capitan. This is a beautiful fall while it lasts, but the stream which produces it dries up early in the season.

Farther up the valley and above El Capitan is the triple group of rocks known as *The Three Brothers*—*Pompom-pa-sus*—which means, as Professor

Whitney says, "Mountains playing Leap-frog." From below, the peculiar shape of the three rocks, with their heads peering over each other, gives the appearance very much of three frogs. The highest is about 4,000 feet above the valley.

Proceeding up the valley, we behold, on our left, the *Yosemite Falls*—three in one—the first leap is 1,600 feet, the second 434 feet, and the third 600 feet. The water is shot with great force over the edge of the rocky cleft, causing it to take a wild plunging leap into a vast basin of rock. Gathering strength, it again leaps forth, and, falling between the North Dome and the Three Brothers, takes its final plunge of 600 feet into the valley. The rumble and roar of the falls are heard at all times, but, in the quiet of the evening, they are so great that it seems as if the very earth were shaking. Probably no falls in the world can compare with these in height and in romantic grandeur. Niagara is 195 feet high, yet here is one 2,634 feet in height, while the renowned Staubbach of Switzerland is not to be compared with it.

Still east of the Yosemite Falls are the *Royal Arches*, one vast rocky wall, several thousand feet high, with vertical sides; while up toward the top, the wall seems scooped out, and is appropriately called the "Shade to Indian Baby-Basket."

To the north of the Arches, rounded in perfect symmetrical form, looms up the *North Dome* 3,725 feet. Presenting its rocky, barren, and bald head to the heats of summer, and the driving snow-storms of winter, without a green speck on its rounded sides, it forms the northeastern boundary of the Yosemite.

Lying in perfect quiet and seclusion, at the foot of and between the North and South Dome, is one of the most beautiful of land-locked bodies of water, "*Mirror Lake*." Pure, clear, cold, reflecting every rock, and ledge, and dome, it is a perfect mirror. Looking up, the towering battlements of rock are seen; looking down into the water, the same rocks are reflected in the lake as far below us. After a weary ride on horseback, and clambering over hills, fording brooks and swift-running streams, it is pleasant to dismount at this lake, the head of the valley, sit quietly upon a great stone,

near the water's edge, and drink in the beauty and grandeur of the scene. Without moving from the margin of the lake, but simply casting our eyes to the right, we are startled by the towering, almost overhanging column of granite 6,000 feet above us in an almost straight line, and absolutely vertical for more than 2,300 feet from the summit, and then falling off with a steep slope of 70° to the bottom of the cañon. This is the *South or Half Dome*, the loftiest and to near inspection the grandest and most imposing mountain of rock in the valley.

Remounting our horses for the purpose of visiting the Vernal and Nevada Falls, we ride through a portion of the valley carpeted with flowers; not a step do our beasts take but some flower of rare beauty and fragrance is crushed beneath their feet. The Merced River, supplied by the many water-falls of the Yosemite and the ever-melting snow from the mountain-tops, flows through the valley; at times gliding smoothly on between banks of rare shrubs and flowers, and again plunging madly over broken rocks and stones. To reach the falls we are obliged to cross the Merced.

Threading our way over broken rocks and the *débris* at the base of the Sentinel Dome, we reach *Pi-wy-ack* (Cataract of Diamonds)—the *Vernal Fall*. Nothing can be seen but a falling cloud of white foam, leaping over such a rocky bed, and in such a declivity, that the noise, rapidity, and bed of the rapids above Niagara, are not to be compared to it. For half a mile below the falls no water can be seen—nothing but running foam, white as milk. Reaching the bottom of the falls, they have the same appearance. At either side of the chasm

rise the vertical rocks, while in the centre, the water, lashed into a milky whiteness, takes the fearful plunge into the basin of gray rock. Beautiful and stately pines cover the hills and mountains, and, at our feet, flowers of a hundred varieties lend their beauty and fragrance to the scene, and render our resting-place, on the bank above the basin of the fall, one of extreme pleasure.

Several small encampments of Digger Indians are generally to be found in the valley. They should be visited. If not delighted, the visitor will certainly be amused at the primitive mode of living of those aborigines. We have already spoken of them in ROUTE XIII. of CALIFORNIA. (See page 287.)

The guide will explain to the visitor all the principal points of interest of the Yosemite, will tell him the name of every rock and water-fall, and will narrate strange stories of Indian adventure and warfare in the valley.

HOTELS.—There are three hotels in the valley—all well kept. They are *Lydig's*, *Black's*, and *Hutchings's*. The "table" at each is well provided, and the sleeping-accommodations are excellent.

By an Act of Congress, the Yosemite Valley and the Mariposa Grove of Big Trees were granted to the State of California upon the express condition that they should be kept as public lands—"inalienable for all time." California accepted the grant, and the lands are now under the care of State commissioners.

Returning from the Yosemite by the Coulterville route, we have the Bower Cave, many fine views of the distant Sierra, and can visit the Calaveras Big Trees. Stockton can be reached on the second day.

THE COULTERVILLE ROUTE.

		MILES.
<i>By Rail.</i>	San Francisco to Stockton.....	90
	Stockton to Knight's Ferry.....	36
<i>By Stage.</i>	Knight's Ferry to Crimea House.....	12
	Crimea House to Don Pedro's Bar.....	9
	Don Pedro's Bar to Coulterville.....	14 — 161
<i>Horseback or on Wheels.</i>	Coulterville to Bower Cave.....	12
	Bower Cave to Black's.....	5
	Black's to Deer Flat.....	6
	Deer Flat to Hazel Green.....	5½
	Hazel Green to Crane Flat.....	5
<i>On Horseback.</i>	Crane Flat to Tamarack Flat.....	4½
	Tamarack Flat to Boundary.....	2½
	Boundary Stake to Edge of Valley.....	0½
	Edge of Valley to Lower Hotel.....	7 — 43½
	Total.....	209½

Stages leave Stockton every day, except Sunday, for Sonora, *via* Chinese Camp, passing through the following stations: Twelve-Mile House (breakfast); Farmington (16 miles); Twenty-six-Mile House, Knight's Ferry (37 miles, dinner); Crinea House (48 miles), where passengers take Coulter & Son's stages for Coulterville, daily. A stage leaves Coulterville daily for Hazel Green, distant 25 miles. Procuring horses at Coulterville for the trip, and providing ourselves with blankets and provisions, we start for Yosemite. Four days are needed to make the trip comfortably and profitably. The tourist should be careful to make an agreement with his guide before starting, and his bargain for the use of horses should include their feed and stabling until their return to Coulterville. These hints should be borne in mind on all occasions of travel in the Yosemite, except, of course, when, as is the case in the Central Pacific Railway route, the cost of guides, horses, etc., is included in the price of the excursion ticket.

At Marble Springs, on the trail, distant 10 miles, may be seen the singular, grotto-like formation called

Bower Cave.—This picturesque locality is well worth visiting. Professor J. D. Whitney, the State Geologist, thus describes it: "It consists of an immense crack in the limestone, open to the air at the surface, and irregularly widened out in a cave-like manner below, by the action of currents of water. On the upper side of the obliquely-descending crevice, an overhanging ledge of rock permits the vertical depth of the cave to the level of the water, which partly fills it, to be measured; it is 109 feet. The length of the open crevice is 133 feet, and its width 86. At various heights deep cavities, or small caves, are worn in the rock, some of which may be followed for a considerable distance. The picturesque effect of the cave is greatly heightened by the growth within it of three large maple-trees, of which the branches project out at the top. The water at the bottom is exceedingly pellucid, permitting the rami-

fications of the crevice beneath its surface to be seen for a depth of at least 40 feet. Access can be had to the bottom of the cave by a series of steps, and a boat is provided for the use of visitors; other conveniences are also furnished, permitting a cool and comfortable stay in this curious place, which seems to be peculiarly adapted for a picnic in hot weather."

Passing on to *Deer Flat*, 23 miles from Coulterville, we camp for the night. At *Hazel Green*, 5½ miles distant, and 6,679 feet above the sea, a fine view of the San Joaquin Valley may be had. At *Crane Flat*, 34 miles, the snow-clad Sierras begin to rise in serrated peaks above the horizon, and the trail branches off to

Tuolumne Grove of Big Trees, about a mile and a half distant. These are similar to the Big Trees of Calaveras (*see* page 290) and the Big Trees of Mariposa (*see* page 293), but are fewer in number. There are 24 trees, the largest 36 feet in diameter. One of these, consisting of two joined at the base, is called the *Siamese Twins*, and is 114 feet in circumference.

A fine view of the Yosemite is had at Valley View, but it is inferior to that at Inspiration Point.

THE BIG OAK FLAT OR HARDIN'S ROUTE.

This is identical with the Coulterville route as far as Rattlesnake, from which point stages run, *via* Big Oak Flat and Garrote, to Hardin's, which is 20 miles from Garrote and within 25 miles of Yosemite Valley. This road from Garrote is a new, and said to be a good one. The accommodations at Hardin's are good. Passengers are carried on horseback from Hardin's to Yosemite for \$5, or through-tickets may be had at the office of Sisson & Co., at Stockton, for \$20, there being no extra expense for guides. Horses are obtained for short excursions in the valley at \$1.50 per day. The trail passes directly through the Tuolumne Grove of Big Trees. (*See* page 299.)

THE CALIFORNIA PACIFIC RAILWAY AND BIG OAK FLAT ROUTE.

		MILES.
<i>By Steamer.</i>	San Francisco to Stockton.....	117
<i>By Rail.</i>	Stockton to Copperopolis.....	36
<i>By Stage or other wheeled Vehicle.</i>	Copperopolis to Chinese Camp.....	15
	Chinese Camp to Jacksonville.....	4
	Jacksonville to Big Oak Flat.....	8 —150
	Big Oak Flat to Sprague's Ranch.....	9
	Sprague's Ranch to Big Flume.....	4
<i>On Horseback.</i>	Big Flume to South Fork Tuolumne River.....	3
	South Fork to Hardin's Ranch.....	4
	Hardin's Ranch to Tamarack Flat.....	14
	Tamarack Flat to Boundary Corner, Yosemite.....	2½
	Boundary Corner to Lower Hotel.....	7½ — 44½
Total distance.....		224½

This route is identical with ROUTE XV. of CALIFORNIA as far as Milton, on the *Stockton & Copperopolis Railway*. From there the tourist has his choice to go to the valley direct by the way of Chinese Camp and Garrote, spending the first night at the latter place, and reaching the valley by the way of Tamarack Flats, with eleven miles of horseback-riding, early in the evening of the second day; or, if he chooses to take the Calaveras Big Tree grove on the route—as he should do—he will go direct to the Big Trees from Milton, spending the first night there, and then pass on by the way of Sonora to the former route at Chinese Camp, whence the journey to the valley is the same as before—this detour to the Calaveras grove adding one day to the time. By this route the fare is \$20, or \$38 for the round trip, if the traveller goes direct to the valley, and if by way of the Calaveras Big Trees is \$25, or \$40 for the round trip. By either route, thus, the journey is made in two days and a half, or three days and a half if the Big Tree Grove on either route is visited. There would probably be some inconvenience in going by one route and returning by the other, but this is the true course for “the intelligent traveller,” who would undoubtedly be able to find in the valley return-horses and guides by either route. Two days will suffice in the valley, though three are almost necessary, and four better still; and \$75 will now cover all expenses for the eight or ten days' journey and visit to this most wonderful piece of Nature on the American Continent.

Copperopolis (36 miles) is the centre and principal business place of the copper-mines of Calaveras County. It was nearly destroyed by fire several

years ago, and is being rebuilt. On account of the low prices of copper, the business of the place is not as active as it formerly was.

The tourist can also visit the Yosemite by way of the Calaveras Big Trees, by the *California Pacific Railway* route, taking the steamer “New World” from San Francisco to Vallejo (23 miles), and travelling thence by rail to Sacramento (60 miles further). From the latter place the route is identical with the one described immediately following.

SACRAMENTO, GALT, AND SONORA
ROUTE (ROUND TRIP).

Via Western Division of the Central Pacific Railway, and by Stage.

STATIONS.—*Western Division Central Pacific Railway*: Sacramento to Brighton, 5 miles; Florin, 9; Elk Grove, 15; McConnell's, 19; Galt (connects with stages for Mokelumne Hill), 26.

STATIONS.—*Hamilton's Stage Line*: Galt to Ione City, 24 miles; Jackson, 34; Amador, 37; Mokelumne Hill (connects with stage for West Point, Angel's, Murphy's, and Big Trees), 41. From Sacramento, 67.

Mokelumne Hill to Big Trees on horseback, 29 miles. From Sacramento, 96.

Passengers from the Big Tree Grove to the Yosemite Valley leave early in the morning by Sisson & Co.'s stages for Sonora, connecting with Shoup & Co.'s stages at Chinese Camp, and arrive at Garrote to stop overnight and take stage the next morning and arrive at the valley in the afternoon. The tourist can leave Yosemite *via* either Mariposa or Coulterville, connecting at Modesto and Lathrop with trains of the Central Pacific Railway east and west.

The route from Sacramento to Galt is described on page 119.

The Big Trees of Calaveras are described in ROUTE XV. of CALIFORNIA. (See page 289.)

Mokelumne Hill (41 miles) is a thriving town of about 1,500 inhabitants, centrally situated in Calaveras County. Placer-mining is still carried on in the deep banks and flats in the neighborhood.

VISIT TO THE HIGH SIERRAS, AND TOUR AROUND THE YOSEMITE VALLEY.

This is a tour not generally made by travellers, but it promises to grow in favor as its attractions become better known. The following description is for the most part condensed from the admirable report of Prof. J. D. Whitney, the State Geologist of California: * By adding a few more days to the time required for a trip to the Yosemite, the tourist, by visiting the higher region of the Sierra Nevada—the Alps of California, as the upper portion of this great chain of mountains is sometimes called—may make himself acquainted with a type of scenery quite different from that of countries usually visited by pleasure-travellers, and may enjoy the sight of as lofty snow-covered peaks, and as grand panoramic views of mountain and valley, as he can find in Switzerland itself. This region of the High Sierra in California is hardly yet opened to visitors, so far as the providing for them public accommodations is concerned, for there is not an hotel, nor a permanently-inhabited house, anywhere near the crest of the Sierra, between the Silver Mountain Road on the north and Walker's Pass on the south; but such is the mildness of the summer, and so steady is the clearness of the atmosphere in the Californian high mountains, that, with a very limited amount of preparation, one may make the tour outside of the Yosemite almost without any discomforts, and certainly without any danger. In the Sierra Nevada, the entire absence of severe storms during the summer, and the al-

most uninterrupted serenity of the sky, particularly invite to pleasure-travel.

For a journey around the Yosemite, or in any portion of the High Sierra, mules or horses may be hired at Bear Valley, Mariposa, or Coulterville; and the services of some one who will act as a guide can be obtained usually at either of these places. There are as yet no regular guides for the high mountains. A good pedestrian will often prefer to walk, and will pack his baggage on a horse or a mule. For convenience and enjoyment, the party should consist of several persons. A good supply of blankets and of provisions, with a few simple cooking-utensils, an axe, a light tent, substantial woollen clothes, and last, though by no means least, a pair of boots with the soles filled with nails. The guide will initiate the unpractised traveller into the mysterious art of "packing" a mule or horse, an accomplishment only acquired by actual practice, but one on the skilful performance of which much of his comfort depends.

Perhaps the best trip that can be taken by the tourist visiting the Yosemite is an excursion around the valley, on the outside. This will reveal much that is of great interest, occupying but a few days, and which can be made mostly on beaten trails without the slightest difficulty or danger. In making the circuit of the Yosemite, as here proposed, the traveller should start from the valley itself, leaving it on the north side, and, following the Mono trail to *Soda Springs*, camp there, and ascend *Mount Dana*, then return by the trail from *Mono to Mariposa*, passing behind *Cloud's Rest* and the *Half Dome*, through the Little Yosemite, across the *Illilouette*, by the *Sentinel Dome*, then to *Westfalls*, and back into the valley, or to Clark's Ranch, as may be desired, the whole trip occupying about a week.

Leaving the valley, the traveller ascends to the plateau by the Coulterville trail; but, instead of keeping on the trail back to that place, turns sharp to the right just after passing the Boundary corner, taking the trail formerly much used by mule-trains between Big Oak Flat and Aurora. The first good camping-ground, after leaving the valley on

* The report has been elaborated and published as "The Yosemite Guide-Book."

the Mono trail, is in the neighborhood of the *Virgin's Tears Creek*, and from here the highest of the "Three Brothers" may be easily reached in an hour or two. From this commanding point, almost 4,000 feet above the valley, the view is very fine, the *Merced River* and green meadows which border it seeming to be directly under the observer's feet. Probably there is no better place from which to get a bird's-eye view of the Yosemite Valley itself. After crossing the *Virgin's Tears*, the next creek is that which forms the Yosemite Falls, and which is about two miles farther on. The trail crosses this creek a little above a small meadow. About two miles farther on is a high meadow called *Deer Park*. Descending a little, we soon reach Porcupine Flat, 8,173 feet above tide-water, and a good camping-ground for those who wish to visit Mount Hoffmann.

Mount Hoffmann is 10,872 feet above the sea-level. It is a bare granitic mass, with a gently-curving slope on the south side, but falling off in a grand precipice to the north. The view from the summit is remarkably fine, and those who cannot visit the higher peaks of the main ridge of the Sierra are advised to ascend this, as the trip from the Yosemite and back need only take two or three days.

Lake Tenaya, the head of the branch of the *Merced* of the same name, is the next point of interest on the trail. It is a beautiful sheet of water, a mile long and half a mile wide. The trail passes around its east side, and good camping-ground can be found at the upper end in a fine grove of firs and pines. At the head of the lake is a very conspicuous conical knob of smooth granite, about 800 feet high, quite bare of vegetation, and beautifully scored and polished by former glaciers. The traces of the existence of an immense flow of ice down the valley, now occupied by Lake Tenaya, begin here to be very conspicuous. A branch of the *Great Tuolumne Glacier* flowed over into the Tenaya Valley through this pass and the Tuolumne River. The whole thickness of the ice in the Tuolumne Valley must have been at least 1,000 feet. The summit of this pass is 9,070 feet above the sea-level.

Cathedral Peak.—The trail descends into the valley of Tuolumne, winding down under the brow of the *Cathedral Peak Group*, a grand mass of rock, which first becomes noticeable just before reaching Lake Tenaya. This is one of the grandest landmarks in the whole region, and has been most appropriately named. As seen from the west and southwest, it presents the appearance of a lofty mass of rock, cut squarely down on all sides for more than a thousand feet, and having at its southern end a beautiful cluster of slender pinnacles, which rise several hundred feet above the main body. It needs no effort of the imagination to see the resemblance of the whole to a Gothic cathedral. Its summit is about 2,500 feet above the surrounding plateau, and about 11,000 feet above the sea-level.

The Valley of the Tuolumne, into which the trail now descends, is one of the most picturesque and delightful of the High Sierra. Situated at an elevation of between 8,000 and 9,000 feet above the sea-level, surrounded by noble ranges and fantastically-shaped peaks which rise from 3,000 to 4,000 feet higher, and from which snow never entirely disappears, traversed by a clear, rapid river, along which meadows of carices and clumps of pines and firs alternate, the effect of the whole is indeed superb. The main portion of the valley is about four miles long, and from half to a third of a mile wide. At its upper end it forks, the Mono trail taking the left-hand branch, or that which comes down from Mount Dana, while the right-hand fork, or that which enters from the southeast, is the one heading on the north side of Mount Lyell, about eight miles above the junction of the two branches.

Soda Springs, on the north side of the Tuolumne, near where the Mono trail descends into the valley, offers good camping-ground. The springs furnish a mild chalybeate water, slightly impregnated with carbonic-acid gas. They are 30 or 40 feet above the river, and are 8,680 feet above the sea. From this point the view in all directions is magnificent.

Mount Dana.—Of all the excursions

sions which can be made from Soda Springs, the one most to be recommended is the ascent of Mount Dana, as being entirely without difficulty or danger, and as offering one of the grandest panoramic views in the Sierra Nevada. Those who wish to try a more difficult feat can climb *Mount Lyell* or *Mount Conners*. As it is rather too hard a day's work to go from Soda Springs to the summit of Mount Dana and back in a day, it will be convenient to move camp to the base of the mountain, near the head of the Mono Pass. The distance from the springs to the summit of the pass is about 10 miles in a straight line, and perhaps 12 in following the trail.

If the traveller has ascended Mount Dana, he will probably desire to return down the Tuolumne Valley, and continue his journey on the trail leading south of Cloud's Rest to the *Little Yosemite* and Sentinel Dome, and so back to Clark's Ranch. This trail strikes directly south from the crossing of the Tuolumne, a little below Soda Springs, and passes close under Cathedral Peak, on the west side, then along the back or east side of Cloud's Rest, and down into the Little Yosemite Valley, as it is called.

The Little Yosemite Valley is a flat valley or mountain-meadow, about four miles long and half a mile to a mile wide. It is enclosed between walls from 2,000 to 3,000 feet high, with numerous projecting buttresses and angles, topped with dome-shaped masses. At the upper end of the valley it contracts to a V-shaped gorge, through which the Merced rushes with rapid de-

scant over huge masses of *débris*. The Little Yosemite is about 6,000 feet above the sea-level, or 2,000 feet above the Yosemite, of which it is a kind of continuation, being on the same stream—namely, the main Merced—and only a short distance above the *Nevada Fall*, from the summit of which easy access may be had to it, whenever the bridge across the river between the Vernal and Nevada Falls shall be rebuilt. On the south side, about midway up the valley, a cascade comes sliding down in a clear sheet over a rounded mass of granite. It is said to be 1,200 feet in height. The concentric structure of the granite is beautifully marked in the Little Yosemite.

Mount Starr King.—The trail, leaving the Little Yosemite, crosses the divide between the Merced and the Illouette, then the last-named stream, passing to the west of Mount Starr King, a remarkable conical knob of granite, of which there is quite a group in this vicinity. Starr King is the steepest cone in the region, with the exception of the *Half Dome*, and is very smooth, hardly having a break in it. The summit is inaccessible.

We have given the tourist as many hints as to the character and locality of the objects to be seen along the route around the Yosemite Valley as our space will allow. If he desires to know more of the High Sierra, the guide will conduct him to numerous mountains, peaks, passes, and valleys, each one of which has its own peculiar beauties and attractions. (See APPENDIX.)

OREGON.

OREGON was organized as a Territory August 16, 1848, and was admitted into the Union as a State, February 16, 1859. It lies upon the Pacific, north of California, and contains an area of 95,274 square miles. The first visit of the white race to Oregon was in 1775, when a Spanish voyageur entered the Juan del Fuca Straits. Three years afterward (1778), the celebrated navigator, Captain Cook, sailed along its shores. In 1791 the waters of

the Columbia River were discovered by Captain Gray, of Boston. An expedition, or exploring-party, was sent out in the year 1804 by the United States, commanded by Lewis and Clark, who wintered in 1805-'6 at the mouth of the Columbia. From that period the coast has been the resort of both English and American fur-traders. By the treaty concluded with Great Britain in 1846, this great territory, which had up to that time been jointly

occupied by English and American adventurers, was divided—the one taking the portion above the parallel of 49° north latitude, and the other all the country south of that line.

Emigration to Oregon was earnestly commenced in 1839, the first settlers crossing through the South Pass into Willamette Valley. For some years the settlement of the country was retarded by the more brilliant attractions of California, though the ultimate result of this neighborship will be to stimulate development. Washington Territory, on the north, was a part of Oregon until the year 1853, when it became a distinct government.

The coast of Oregon, viewed from the sea, is, like that of California, stern and rock-bound, except that, while in the latter region the nearer mountains follow the line of the shore, in Oregon they approach the ocean at a wide angle. The lower or Pacific country occupies an area of from 75 to 120 miles wide, in which lie the great valleys of Willamette, Umpqua, and Rogue Rivers. Though the valley-lands of the Willamette and the adjacent regions are extremely fertile, yet the greater portion of Oregon is not well adapted for tillage. Nature here assumes its sublimest forms, and the scenery is among the grandest to be found on the entire continent. Heavy rains usually prevail in December, January, and February, at which season the roads are well-nigh impassable.

The climate, as on all the Pacific coast, is milder than in corresponding latitudes near the Atlantic. The winters are comparatively brief, and the snows, when snow falls at all, are very light.

Oregon is prolific in grain, grass, fruit, and timber.

Minerals.—Gold is found in various parts of Southern Oregon, and silver, lead, and copper, in the Cascade Mountains. Coal is abundant at Coose Bay and other points. Iron is to be had in abundance within a few miles of Portland.

Oregon, like California, is famous for its wonderful forest-growth. The Lambert pine, a species of fir, sometimes reaches, in the lower part of the country, the magnificent height of 300 feet.

Population, etc.—The population of the

State in 1860 was 53,465; in 1870 it was 90,922. The total valuation of real estate and personal property is given by the census of 1870 as \$31,798,510, against \$19,024,819 in 1860. In January, 1871, there were 159 miles of railroad in Oregon.

RIVERS AND MOUNTAINS.

The Columbia River is the greatest on the Pacific slope of the continent. It rises in a small lake among the western acclivities of the Rocky Mountains, and flows in a devious course 1,200 miles to the Pacific, forming a great portion of the dividing line between Oregon and Washington Territory on the north. Its first meanderings are northward along the base of its great hill-ranges, and afterward its course is due west to the sea, though very capriciously. It is a rapid river, pushing its way through mighty mountain-passes, and in many a cataract of marvellous beauty. In its course through the Cascade Range it falls into a series of charming rapids, which may be numbered among the chief natural attractions of the country. The tide sets up to this point, 140 miles. For 30 or 40 miles from its mouth the Columbia spreads out into a chain of bay-like expansions from four to seven miles or more in width. Its average width is less than a mile. The shores are lined with grand mountain-heights, making the landscape everywhere extremely interesting and impressive. Vessels of 200 or 300 tons' burden may ascend to the foot of the Cascades, of which we shall speak further presently. Above this point the river is navigable for small vessels only, and but at intervals in its course. (*See also page 288.*)

The Willamette River flows from the foot of the Cascade Range, 200 miles, first northwest, and then north, to the Columbia, eight miles below Fort Vancouver. Its way is through the beautiful valley-lands which bear its name, and upon its banks are Oregon City, Portland, Corvallis, Eugene City, and other thriving places. Ocean-steamers ascend 15 miles to Portland. Ten miles beyond this point, a series of fine falls occurs in the passage of the river, above which the waters are again navigable,

perhaps 60 miles, for small steamboats. The Falls of the Willamette is a place famous for its excellent salmon-fishing. Among the tributaries of the Willamette are the *Tualatin*, *Yamhill*, *La Creole*, *Luckanute*, *Long Tom*, and *Mary Rivers*, coming from the base of the Callapoosa and Coast Range Mountains, and the *McKenzie*, *Santiam*, *Pudding*, and *Clackamas*, from the Cascade Range.

The Umpqua and Rogue Rivers, in Southern Oregon, are large, beautiful streams. The former is only navigable for about 60 miles from the ocean to Roseburg.

The Valley of the Willamette is a most fertile region, and very attractive in its natural curiosities. It is 50 miles by 100 in extent, and supports by its agricultural products nearly one-half of the entire population of the State. Many remarkable instances are to be found here of those eccentric mountain formations known as Beetlers—huge, conical, insulated hills. Near the mouth of the Coupe River, there are two of these heights, which tower up 1,000 feet, but half a mile removed from each other at their base. They are called *Pisgah* and *Sinai*. They stand in the midst of a plain of many miles in extent. At a point near the Rickreal River, in the Willamette Valley, no less than seven snow-capped peaks of the Cascade Range may be seen.

The Cascade Range includes some of the loftiest mountain-peaks in the United States, among which are Mount Hood, Mount Jefferson, and Mount Pitt. The first of this grand trio has a volcanic crest 14,000 feet above the level of the sea. The following altitudes were given by Professor Wood, in his survey and exploration a few years since: "At the summit of the Cascade Range, and foot of Mount Hood proper, 4,400 feet; at the limit of forest-trees, about 9,000 feet; at the highest limit of vegetation, 11,000 feet; at the summit of the mountain, 17,000 feet." Between the Blue Mountains and the Cascade Range lie a number of small lakes.

The view from the summit of Mount Hood is thus described by a traveller: "From south to north its whole line is at once under the eye from Diamond Peak to Rainier, a distance of not less than 400 miles. Within that distance are Mounts

St. Helen's, Baker, Jefferson, and the Three Sisters, making, with Mount Hood, eight snowy mountains. Eastward the Blue Mountains are in distinct view for at least 500 miles in length, and lying between us and them are the broad plains of the Des Chutes, John Day, and Umatilla Rivers, 150 miles in width. On the west, the piny crests of the Cascades cut clear against the sky, with the Willamette Valley sleeping in quiet beauty at their feet. The broad belt of the Columbia winds gracefully through the evergreen valley toward the ocean. Within these wide limits is every variety of mountain and valley, lake and prairie, bold, beetling precipices, and graceful, rounded summits, blending and melting away into each other, forming a picture of indescribable magnificence. On its northern side, Mount Hood is nearly vertical for 7,000 feet; there the snows of winter accumulate till they reach the very summit, but, when the summer thaw commences, all this vast body of snow becomes disintegrated at once, and, in a sweeping avalanche, carrying all before it, buries itself in the deep furrows at its base, and leaves the precipice bare."

ROUTES, ETC.

Portland, the commercial city of the State, has been described in ROUTE XIV. of CALIFORNIA. (See page 288.) It will be the northern terminus of the *California & Oregon Railway*. At present it is reached by steamer from San Francisco, and by rail and stage from Sacramento (see ROUTE XII. of CALIFORNIA), distant 642 miles. Numerous river-steamers ply between Portland and the various towns on the Willamette and Columbia Rivers. A daily line of steamers leaves Portland for the Lower Cascades of the Columbia (65 miles), passing *Cape Horn* and *Castle Rock*; thence by rail five miles to the Upper Cascades, whence the traveller can again take boat on the river for the Dalles. Portland is one of the Pacific termini of the *Northern Pacific Railroad*, which will make it one of the great cities of the continent.

The *California & Oregon Railroad* offers great attractions to tourists and sportsmen. It is now finished to Roseburg, 200 miles, and is being rapidly built through Southern Oregon to the boundary-line,

where it will connect with the line to San Francisco and the Pacific Railway. It will be completed in the fall of 1874. This road starts from Portland and runs up the east side of the Willamette River. The beautiful towns of Salem (the capital of the State) and Albany are on this line. It will pass through the fertile valleys of the Unipqua and Rogue Rivers, scale the magnificent Cascade range of mountains, and skirt the beautiful "lake country."

Dalles City, or "The Dalles," is a thriving town of about 2,000 inhabitants, on the south bank of the Columbia, a few miles east of the base of the Cascade Mountains, and about 120 miles east of Portland. There is a large woollen-mill at this place, capable of using 150,000 lbs. of wool annually. Dalles City connects by rail with Celilo, on the Columbia, with Portland by steamer, and is a point of divergence for travel east of the Cascades, northerly into Washington Territory, easterly up the Columbia, southeasterly to the John Day mining-region. The river at the Dalles is confined between basaltic cliffs in a channel less than 100 yards wide. A fine view of Mount Hood is obtained here.

From Celilo eastward the tourist may profitably pursue his trip to Umatilla (97 miles), Wallula (110 miles), Walla-Walla (140 miles) (*see* WASHINGTON TERRITORY), and Lewiston, Idaho (223 miles).

Umatilla may be fairly regarded as the head of certain navigation on the Columbia. Hence, and from Wallula, daily stages run over the Blue Mountains to Boise and towns in Idaho. (*See* SUMMARY OF DISTANCES, etc.)

St. Helen's stands upon a rocky bluff on the west side of the Columbia, 30 miles from Portland. The river is here a mile wide, and forms a fine harbor.

Oregon City is described in ROUTE XII. of CALIFORNIA. (*See* page 286.)

Salem, the capital of the State, is 50 miles above Oregon City. It connects by stage and river-boats for Portland. (For description, *see* ROUTE XII. of CALIFORNIA, page 286.)

Astoria, 100 miles from Portland, connects with that city by steamer. (*See* ROUTE XIV. of CALIFORNIA, page 288.)

Cañon City is situated at the headwaters of John Day River, in the midst of a profitable placer-mining region.

DISTANCES, ETC.

	MILES.
Portland to Lower Cascades.....	65
Across Portage.....	5
Upper Cascades to Dalles.....	45
	<hr/> 115

Boats run daily:

Dalles to Celilo.....	15
Celilo to Wallula.....	110
Wallula to Walla-Walla.....	30
	<hr/> 155

Boats run three times a week:

Dalles to Umatilla.....	111
Walla-Walla to Lewiston.....	83

Stages run three times a week:

Lewiston to Florence.....	120
Lewiston to Elk City.....	142
Lewiston to Oro Fino.....	56

CAÑON CITY TO DALLES.

Wallhagan's Ranch.....	17
South Fork.....	17
Rock Creek.....	17
Mountain House.....	9
Alkali Flat.....	14
Muddy.....	22
Antelope Valley.....	16
Buck Hollow.....	15
Haystack.....	12
Cold Spring.....	10
Dixon's Bridge.....	15
Dalles.....	13
	<hr/> 177

Stages run three times a week:

WALLA-WALLA TO PLACERVILLE.

(Boisé Mines.)

Walla-Walla to Walla-Walla River.....	13
Linkton's Mill.....	9
Mountain House.....	12
Phillips.....	15
Willow Creek.....	11
Hendershott's.....	16
Uniontown.....	6
Pyles.....	6
Quigley's.....	12
Bouldock's.....	13
Illinois.....	16
Express Ranch.....	12
Stout and Moody's.....	14
Miller's.....	10
Olds's Ferry.....	6
Wolser River.....	15
Galena.....	20
Payette Ranch.....	15
Burners's.....	15
Schaeffer's.....	12
Placerville.....	16
	<hr/> 262

Placerville to Centreville.....	4½
Placerville to Idaho City.....	13
Placerville to Pioneer City.....	9
Idaho City to Boise City.....	30
Boisé City to Owyhee.....	45
Boisé City to South Boisé.....	85
Idaho City (by trail) to South Boisé.....	52

Stages run regularly to all the above-named places, except South Boisé.

WASHINGTON TERRITORY.

WASHINGTON TERRITORY, formerly a part of Oregon, occupies the extreme northwest corner of the domain of the United States. Its greatest extent is about 600 miles from east to west, and 200 from north to south, comprising about 70,000 square miles. On the north, it is separated from British America by the Straits of Juan del Fuca. The Rocky Mountains lie on its eastern boundary, Oregon on the south, and the Pacific Ocean on the west. The general appearance of this region is very similar to that of Oregon—traversed, as both countries are, by the same mountain-ranges and rivers. The Columbia traverses the Territory, dividing it into unequal parts, and separating it from Oregon on the south. *Mount Olympus*, the chief peak here of the Coast Range, is 8,197 feet high, covered, like most of the summits of the region, with perpetual snows. *Mount St. Helen's*, one of the spurs of the Cascade Range, has an elevation of 12,000 feet; and *Mount Rainier*, on the same chain, rises 13,000 feet. *Mounts Adams and Baker* are other grand peaks of the Cascade Range. This range, which crosses the Territory from north to south 100 miles from the coast, is a continuation of the Sierra Nevada. It is from 40 to 60 miles wide at its base, and has an average elevation of 6,000 feet. Spurs of the Rocky Mountains are scattered through the eastern portion of Washington Territory. The chief source of wealth to the people of the Territory at present is in the utilization of their immense forests of fir, and spruce, and cedar, though by-and-by, as the land becomes settled by the extension of the Northern Pacific Railway across the Territory, it will be made productive by agricultural industry, especially in the culture of grass and raising of live-stock.

Mammoth trees, like those of California and Oregon, are found also in this region. The wilds of Washington Territory abound in elk, deer, and other game. Wild-fowl, also, of many varieties, are plentiful; and in no part of the world are there finer fish

than may be caught here. The rivers of Washington are rapid mountain-streams, replete with picturesque beauty in bold, rocky cliffs and precipices, and in charming cascades.

The population of Washington Territory in 1860 was 11,594; in 1870, 23,901. The total valuation of real and personal estate is given by the census of 1870 as \$10,187,815, against \$4,394,735 in 1860. At present there are no completed railroads in the Territory. Settlers are moving in very rapidly.

ROUTES.

The readiest route to Washington from Oregon, which should be first visited, is by steamer down the Willamette and Columbia Rivers, 50 miles, and up the Cowlitz, two miles, to *Monticello*. Thence stage-wagons, twice a week, perform the service—not always a very agreeable one—of transporting the traveller to Olympia, 40 miles. Between Monticello and Olympia are seen some of the grandest woods on the continent. "Here," says a traveller, "is the forest primeval, thick with slender pine, fir, hemlock, spruce, cedar, and arbor-vitæ, the trunks gloved in moss of orange-green, the branches hung with brown Spanish moss, the ground white, yellow, and purple, with luxuriant flowers."

Olympia, the capital of the Territory, is a small town situated at the head of navigation of Puget Sound, on the east side of Tenalquet's River. It is reached by stage from Monticello, and by steamer from Victoria, Vancouver's Island. (See ROUTE XIV. of CALIFORNIA, page 289.)

Steilacoom, the capital of Pierce County, is near the head of Puget Sound, 16 miles by land from Olympia.

Seattle is on the eastern shore of Puget Sound, and is the site of the "Territorial University," for which handsome buildings were erected by means of an appropriation of \$75,000 by Congress. It has been fixed upon provisionally as the

main terminus of the Northern Pacific Railroad, and if so, will become in time a great city.

Port Townsend, a flourishing town on the bay of the same name in Puget Sound, for which this town is the port of entry, has a good harbor, of sufficient depth for ocean-steamers. It contains a United States Custom-House and a United States Marine Hospital.

Walla-Walla, the capital of the county of the same name, is situated on Mill Creek, in the midst of a beautiful and rich agricultural district. It is reached by stages regularly running from Wallula.

Whatecom, a small town on the western shore of Bellingham Bay, is the principal shipping-port of Bellingham Bay coal-mines.

The other principal towns and settlements of the Territory are Nesqually, New York, and New Dungeness, on Puget's Sound and Admiralty Inlet; Pacific City, Catalamet, Fort Vancouver, Monticello, and Cascade City, on the Columbia River; Wabassport and Cowlitz Farms, on the Cowlitz River; and Penn's Cove, on Whidby's Island.

The easiest and most comfortable way to see the different towns and points of interest in the Territory is to take steamer from Portland down Puget Sound. (*See ROUTE XIV. of CALIFORNIA*, page 288.) This is one of the loveliest sheets of water on the continent. It has 1,400 miles of navigation, and is bounded by pine-forests and snow-capped mountains. Hundreds of islands dot its shining surface, while its clear depths are almost transparent. The

mountain-views from the sound will delight the tourist. Lumber constitutes the basis of trade and business carried on at the different towns and villages on these waters. The trade in this article exceeds a million dollars annually. Every settlement has its saw-mill, some of them of large size and capacity. There is abundance of fish, and coal is found and exported in large quantities. The Indians on Whidby's Island and in the neighborhood of Seattle (*see* page 307) will attract the traveller's attention. They belong to the Skagit tribe.

From the north end of Puget Sound the traveller can cross the Straits of Fuca and visit the British possessions upon Vancouver's Island.

The population of the island is between 8,000 and 10,000, four-fifths of which reside in the pleasant, prosperous little city of Victoria. The climate of Vancouver is genial and healthful. Delicious fruits and the most fragrant flowers grow in abundance on the island.

Victoria, the capital of the British colony of Vancouver Island, is situated on the southeast end of that island. It was originally the depot of the Hudson Bay Company. It is well built, of brick and stone, and wears a cheerful, attractive appearance. The *Government House* and the *Governor's Mansion* are worth visiting. (*See ROUTE XIV. of CALIFORNIA*, page 289.)

San Juan, the island about which there was such a long controversy between the United States and Great Britain, lies just off the coast of Washington Territory.

ALASKA.

ALASKA is the newest accession to the territory of the United States, and, though it is not likely to prove very inviting to travellers, a brief sketch seems necessary to complete the *HAND-BOOK*.

From its discovery by Behring, in 1741, till October 8, 1867, Alaska belonged to Russia, and was known as

Russian America. On the latter date it was transferred to the United States, in consideration of the sum of \$7,200,000, paid in coin, and now forms one of the Territories.

Perhaps no territory of equal extent on the globe (it embraces 450,000 square miles), except Central Africa, is so little

known; for, even now, although we have been flooded with books from travellers claiming to have explored this country, the interior is yet an unknown land. The seaboard, and the line of the Yucon, and some other rivers, are the only portions of the Territory we know any thing of. And, because of the popular ignorance on the subject, much scope has been given to mere invention; and while, on the one hand, the country has been decried as the "fag-end of creation," on the other hand it has been overpraised. Imagination has been made to supply the place of knowledge, and even poetry has been lugged in to picture the supposed savage desolation of the land, and the imagined rigor of the climate. Now, in the interior of Alaska, the climate is doubtless very severe, and the trappers and gold-miners of the Stachine River report that on the main-land the snow reaches a fabulous depth, and does not disappear until nearly the end of the summer; but, in all that part of Alaska and British Columbia which borders on the ocean, and extends from Behring Straits to the Straits of Fuca, the climate is wonderfully soft and mild for the latitude—so much so, indeed, that the temperature in the winter-time is said to be about that of Washington City.

The great drawback to the climate is the rain, which falls almost incessantly during nine months of the year. The average fall of rain for eighteen years past has reached the astonishing figure of 86 inches. Of course, vegetables and grains cannot be grown in a soil of such excessive moisture, but the forests produce some of the best timber on the continent; the plains between the mountains, as well as the sides of the mountains themselves, are covered with forests so dark and dense as to be impenetrable except to wild beasts and savage hunters. On the lowest ground the cotton-wood grows. The birch-tree sometimes appears upon the river-sides, but the forests of Alaska consist mainly of the pine, the cedar, the cypress, the spruce, the fir, the larch, and the hemlock. These forests begin almost at the water's edge, and they rise with regular gradations to a height of two thousand feet. According to Mr. Seward, the native grasses pre-

serve their nutritive properties, and the climate is so mild that cattle and horses require but slight provision of shelter during the winter. There is also reason to believe that, beyond the Coast Range of mountains, there is an extension of the rich and habitable valley-lands of Oregon and Washington Territory. The animal productions of the forests are abundant, the elk and deer being so numerous as to be undervalued for food or skins by both natives and strangers. The bear, of many families—black, grizzly, and cinnamon—the mountain-sheep, the wolf, the fox, the beaver, the otter, the mink, the raccoon, the marten, the ermine, and the squirrel, are among the land fur-bearing animals. The fur-bearing seals are found most numerous on St. Paul's and St. George's Islands.

As to the mineral wealth, so eloquently insisted upon by both Mr. Sumner and Mr. Seward, it has not yet revealed itself. Gold has been discovered on the Stachine River, and the mines have been worked to some extent. Copper is said to have been discovered on the Copper River, and copper utensils were in use among the natives as far back as the time of Behring. Silver, iron, and bismuth, are also said to exist, though where, it is yet reserved for explorers to find out. Of coal there is an abundant supply on Admiralty Island, on Kootznoo, and at Cook's Inlet. Its fur-trade is all that has ever made Alaska commercially important, and the value of this has been decreasing rapidly since the country came under the sway of the United States.

Alaska, as we have said, is not likely ever to be much frequented by travellers, yet one now and then finds his way there, and the following description of the voyage from Victoria, on Vancouver's Island, to Sitka, is from the pen of a late sight-seer:

"Let us suppose the Highlands of the Hudson River (with which we nearly all are familiar) to be stretched out, as it were, for nine hundred miles. We won't widen the river at all, but we will increase the height of the hills from fourteen hundred to three thousand, seven

thousand, and, in some cases, ten thousand feet. We will cover the peaks of the mountains with snow, and the rest with dense forests of timber, except where the mountain-streams come tumbling down in great water-falls of fifty feet or more, and frequently fall over a huge cliff directly into the sea, near which our vessel passes. As we go farther north, imagine great valleys filled with enormous glaciers, or sheets of ice, from one to ten miles wide, and extending back miles into the interior. These huge masses of ice, sometimes twelve hundred feet thick, are of a blue Alpine hue, and, when the bright sunlight falls upon them, their gleaming surface, rich with prismatic color, presents an inconceivably magnificent sight.

"Now, if the reader can gather any thing from this imperfect description, he has in his mind's eye the scenery of Alaska. For miles and miles our steamer journeys along through this wilderness, amid these mountains 'wooded to the peak.' From base to snowy region, nothing mars the uniformity—a dense, dark forest of pines and hemlock, through whose wilds the foot even of the savage has never wandered! The eye fairly wearies of the endless monotony and death-like stillness of these primeval forests, and seeks for more peaceful landscapes; but in vain. Nothing disturbs the dreary loneliness of this wonderful forest-land, except the splash of the paddles, as the steamer speeds softly on her way, the shrill note of the eagle, as he circles over some lofty cliff, or the howl of the wolf amid the recesses of the forest."

Sitka, the seat of government, is really the only point in Alaska where the United States is able to exercise more than a nominal authority. It has a population of about 1,500, of whom 1,000 are Indians, and is, beyond doubt, the dirtiest and most squalid collection of log-houses on the Pacific slope. On the right of the town, looking at it from the anchorage, stand the buildings formerly belonging to the fur company, the citadel being on a rocky emi-

nence; farther on, the houses of the citizens; finally, the church and hospital. On the left of the town, outside of the stockade, is the Indian village of about sixty huts; still farther to the left, a collection of Indian graves.

The Russian governor's house, or the citadel, now occupied by the commanding officer of the military district, is the only building in Sitka, except the church, that deserves any special mention. It is perched on Katalan's Rock, and is a huge structure of two stories in height, but very long and broad, roofed with sheet-iron, painted red, and capped by the only light-house in Alaska, which, at night, casts a feeble glimmer three or four miles seaward. The summit of the hill is defended by batteries which command every point in the harbor. The north-west end is approached by a flight of wooden steps, and half-way up sentinels are kept posted day and night; at this point is a sort of military prison, in front of which is displayed a light battery of brass cannon, loaded with canister, and ready for any emergency. The upper story of the building is divided into one large room in the centre, flanked by drawing-room and billiard-room at one end, and another large room at the other, all well kept, painted in nice style, and hung with old prints of celebrated English sea-fights. The lower story contains dining-room, parlor, study, and sleeping-apartments, all very large, and furnished with the inevitable Russian stove, or furnace. The entire structure is built of huge logs, squared, joined, and painted. The Indians are never allowed inside the stockade after nightfall, while a guard is kept constantly on the alert with rifles loaded, and a field-battery of Parrott guns kept constantly trained on the Indian village, adjoining the town, and a man-of-war lies anchored in the harbor, with her guns pointed at the Sitka village.

Since the American occupation, much has been done toward improving Sitka. Among other things, an Anglo-Russian newspaper has been started, and promises to be a successful enterprise.

APPENDIX.

CALIFORNIA.

Carriage-Road to Yosemite.—During the past summer (of 1873) a new route was opened to the valley, which permits stages to run to its very verge just above Bridal-Veil Falls. It commences at Hazel Green, the old terminus of the stage-line by the Coulterville route, is only eighteen miles long, and, by hugging the sides and bottom of the Merced Cañon, avoids all difficult grades—the heaviest being less than fifteen feet to the hundred. The road has been located with special reference to placing it below the permanent snow-line of the Sierras; and thus access will be had to the valley in winter as well as in summer—a matter of great importance, for the reason that the scenery is regarded as grander in winter than at any other time of the year. The whole distance from Merced, the nearest station on the Visalia division of the *Central Pacific Railroad*, is only 88 miles, and by making an early start the trip may be accomplished in a single day.

This new route is a great improvement in point of convenience upon any previous method of reaching Yosemite. Thousands of people, especially ladies, have been deterred from visiting the valley by the hard ride of 40 miles on horseback; but as stages now run over a good carriage-road from the end of the railway to the hotels in the valley, the number of those who will flock to this most wonderful chasm in the world will doubtless be increased a hundred-fold.

The road is available by both the Coulterville and Chinese Camp, two of the three main routes to Yosemite; and a new grove of gigantic trees has been discovered directly on its route.

A New Yosemite.—It is claimed by the California newspapers that a new and grander Yosemite than that heretofore known to the world has lately been discovered. It was penetrated late in the fall of 1872 by Galen Clark, State Guardian of the Great Valley, and John Muir, an enthusiastic and devoted geologist, botanist, and mountain explorer. It is situated in the Tuolumne River Cañon, 17 miles north of the Yosemite. The main Tuolumne River, which is a much wider stream than the Merced, runs through the great Tuolumne Cañon. This cañon and its connections have an unbroken length of 40 miles. For 20 miles of this distance the cañon is shut in by vertical walls of granite, some of which are from two to five hundred feet higher than the very highest in the Yosemite Valley. The Tuolumne Cañon or Yosemite, at its widest part, is only a quarter of a mile wide, while the Merced-Yosemite Valley is from half a mile to a mile and a quarter wide. The falls in the latter surpass those of the Tuolumne Cañon in unbroken volumes of falling water; but in endless variety of cascades and water-shoots the Tuolumne Cañon is much the grandest. There is one water-leap, 1,000 feet high, in the latter. One of its water-falls spreads out at first like a great fan of silvery-threaded water; but, after a descent in

APPENDIX.

this shape of about 200 feet, it is whirled over, closed up, changed in color, and shot down a narrow groove worn in the rocks like an arrow of steam. There are a greater display and variety of water-hues, tints, motions, and expressions, in the Tuolumne Cañon than in the Yosemite.

Lake Tahoe.—An English traveller who has lately made the trans-continental tour writes as follows of the trip to Lake Tahoe: "The road from Truckee to Lake Tahoe follows the Truckee River almost the entire distance. There is hardly a more beautiful drive in all California. At one moment you are by the side of the river, dark, deep, and moving on in a silent mass; a turn of the road, and the waters are torn and twisted and eddying and foaming, as with an agony of passion. Again your ear catches a distant roar, and after a time you come to a spot where the hand of man has erected a

barrier, over which the waters fall in one solid plunge, while the blockaded stream above rests in a sullen captivity. On either side of the river's bank rise the mountains of the Sierras, from under whose everlasting snows constantly stream down the thousand rivulets that feed the main river. We have no space to describe the ever-changing, exquisite scenery of this road. After fifteen miles of enjoyment, spite of the discomfort of compressed animation, the stage crosses a bridge, turns a corner, and Lake Tahoe is before us."

A new steamer has been placed on the lake, which will greatly increase the attractions of a trip on its waters. It is 100 feet long, and can accommodate upward of 500 passengers, and is a very different affair from the miserable little craft that travellers have heretofore had to put up with, and which were unsafe, slow, and most uncomfortable.

MISSOURI.

ST. LOUIS TO TEXAS.

Via Missouri, Kansas & Texas Railway.

STATIONS.—St. Louis to Sedalia, 188 miles; Windsor (connects with daily stages to Warsaw and Springfield), 21 m. from Sedalia; Calhoun, 29; Clinton (connects with daily stages to Brownington, Osceola, Humansville, and Bolivar), 40; Montrose (connects with daily stages to Germantown and Johnstown), 53; Appleton City (connects with daily stage to Butler), 59; Rockville, 67; Schell City, 72; Walker's, 83; Nevada (connects with daily stages to Montevallo, Virgin City, Stockton, Lamar, Avola, Greenfield, Granby, Golden City, Springfield, Bolivar, and Carthage), 90; Fort Scott (connects with Missouri River, Fort Scott & Gulf Railway), 111; Marmaton, 118; Walnut, 137; Osage Mission, 145; Parsons (connects with Neosho Division; also with stages for Independence, Elk City, and Elk Falls), 156; Labette, 164; Oswego, 170; Chetopa, 182; Blue Jacket, 199; Vinita, 211; Choteau, 245; Gibson, 267; Muscogee (connects with mail-stages for

Fort Smith, Van Buren, etc.), 276; Oke-taha, 290; North Forktown, 307; South Canadian, 320; Reams, 328; McAllister, 336; Limestone Gap, 363; Atoka, 380; Caddo (connects with stage for Fort Sill), 400; Durant, 412; Colbert, 424; Denison (connects with Houston & Texas Central Railway, for all points in Texas; also with stages to Paris, Bonham, Clarksville, etc.), 432; Waco, 674; Houston, 772; Galveston, 822; Austin, 837.

The completion of the *Missouri, Kansas & Texas Railway* opens another grand through-route between the West and the South, and brings the cattle-growing districts of Texas within three or four days' distance of the Northern markets. It is this which gives the road its importance, and except for this it presents little of interest to the tourist, traversing as it does a region which is for the most part unsettled, barren, and destitute of picturesque features. From St. Louis to Sedalia the road has already been described as part of ROUTE XVII. (see page 86), and from Denison to Galveston, Houston, and intermediate points, it is

APPENDIX.

fully described in the **HANDBOOK OF TRAVEL—SOUTHERN TOUR.** At Fort Scott it enters Kansas, and at Chetopa the Indian Territory, which it crosses in nearly a straight line from north to south. If the traveller desires to explore the great

Indian reservations, this is the road which he should take, as it carries him directly into their midst; otherwise he will have but little to claim his attention in the long journey of nearly a thousand miles.

MONTANA.

How to reach Yellowstone

Park.—Until the completion of the *Northern Pacific Railway* to its vicinity, the trip to the Yellowstone is too difficult to be made by any save the hardiest and most enterprising tourists. The easiest way to reach the Park at present is to take the *Northern Pacific Railway* to its terminus, from which a long and tedious but delightful horseback ride among the settlements along the Upper Missouri will bring the traveller to Fort Ellis. Fort Ellis is a frontier military post, just on

the verge of the Yellowstone Valley, and is the virtual starting-point for all who would behold the wonderful region beyond. Here guides may be secured, a camp equipage, pack-mules, and all the requirements of the Yellowstone tour.

The best time to visit the Park is from the first of July to the end of September. At any other season the traveller is liable to be overtaken by the snow, in which case his trip would prove dangerous as well as uncomfortable.

IDAHO.

Shoshone Falls.—The following description of these falls, from Clarence King's "*Mountaineering in the Sierra Nevada*," is the best that has yet been given, and supplements that to be found in the body of the Guide: "In plan the fall recurves up-stream in a deep horse-shoe, resembling the outline of Niagara. The total breadth is about 700 feet, and the greatest height of the single fall about 190. Among the islands above the brink are several beautiful cascades, where portions of the river pour over in lace-like forms. The whole mass of the cataract is one ever-varying sheet of spray. In the early spring, when swollen by the rapidly-melted snows, the river pours over with something like the grand volume of Niagara, but, at the time of my visit, it was wholly white foam. Here and there along the brink the underlying rock shows through, and among the islands shallow green pools disclose the forms of the underlying trachyte. Numberless rough shelves break the fall,

but the volume is so great that they are only discovered by the glancing outward of the foam. The river below the falls is very deep. The right bank sinks into the water in a clear, sharp precipice, but on the left side a narrow, pebbly beach extends along the foot of the cliff. From the top of the wall, at a point a quarter of a mile below the falls, a stream has gradually worn a little stairway: thick growths of evergreens have huddled together in this ravine. The trachytes are very curiously worn in vertical forms. Here and there an obelisk, either wholly or half detached from the cañon-wall, juts out like a buttress. Farther down, these projecting masses stand like a row of columns upon the left bank; above them, a solid capping of black lava reaches out to the edge, and overhangs the river in abrupt black precipices.

"Under the influence of the cool shadow of cliffs and pine, and constant percolating of surface-waters, a rare fertility is developed in the ravines opening

upon the cañon-shore. A luxuriance of ferns and mosses, an almost tropical wealth of green leaves and velvety carpeting, line the banks. There are no rocks at the base of the fall. The sheet of foam plunges almost vertically into a dark, beryl-green, lake-like expanse of river. Immense volumes of foam roll up from the cataract base, and, whirling about in the eddying winds, rise often a thousand feet in the air. When the wind blows down the cañon, a gray mist obscures the river for half a mile; and, when, as is usually the case, the breezes blow eastward, the foam-cloud curls over the brink of the fall, and hangs like a vapor over the upper river. Incessant roar, reënforced by a thousand echoes, fills the cañon. Out of this monotone, from time to time, rise strange, wild

sounds, and now and then may be heard a slow, measured beat, not unlike the recurring fall of breakers. From the white front of the cataract the eye constantly wanders up to the black, frowning parapet of lava. Angular bastions rise sharply from the general level of the wall, and here and there isolated blocks, profiling upon their sky-line, strikingly recall barbette batteries. The whole edge of the cañon is deeply cleft in vertical *crevasses*. The actual brink is usually formed of irregular blocks and prisms of lava, poised upon their ends in an unstable equilibrium, ready to be tumbled over at the first leverage of the frost. Hardly an hour passes without the sudden boom of one of those rock-masses falling upon the ragged *débris* piles below."

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
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